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| **CHA-120** | Wall charger for RBP-120 batt | 10.99 |
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See Premier for speaker/mics for ADI HTs

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|---|---|---|
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| **PROG-47** | PC prog soft/cable; AR-147/247/447 | 39.99 |
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| **MTG BKT** | Extra mobile bracket | 10.99 |
| **PROG-47** | PC prog soft/cable; AR-147/247/447 | 39.99 |
| **PWR CORD** | Extra DC cable | 10.99 |
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| **MTG BKT** | Extra mobile bracket | 10.99 |
| **PROG-47** | PC prog soft/cable; AR-147/247/447 | 39.99 |
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| **IH-4501** | 4 x 5" 3/8-24 quad magnet mt | 52.99 |
| **IH-4501-SO** | 4 x 5" SO-239 mt quad magnet mt | 57.99 |
| **IHF-5S** | Set of 5 HF mob ants (10/15/20/40/75) | 89.99 |
| **IHF-6** | 6m 7' mobile antenna | 19.99 |
| **IHF-10** | 10m 7' mobile antenna | 19.99 |
| **IHF-12** | 12m 7' mobile antenna | 19.99 |
| **IHF-15** | 15m 7' mobile antenna | 19.99 |
| **IHF-17** | 17m 7' mobile antenna | 19.99 |
| **IHF-20** | 20m 7' mobile antenna | 19.99 |
| **IHF-30** | 30m 7' mobile antenna | 19.99 |
| **IHF-40** | 40m 7' mobile antenna | 22.99 |
| **IHF-75** | 75m 7' mobile antenna | 26.99 |
| **IHKD-3S** | Set of 5 quick disconnects | 21.99 |
| **IHF-5MS** | Set of 5 HF mini mob (10/15/20/40/75) | 89.99 |
| **IHFM-6** | 6m 42" mini mobile antenna | 19.99 |
| **IHFM-10** | 10m 36" mini mobile antenna | 19.99 |
| **IHFM-12** | 12m 36" mini mobile antenna | 19.99 |
| **IHFM-15** | 15m 39" mini mobile antenna | 19.99 |
| **IHFM-17** | 17m 39" mini mobile antenna | 19.99 |
| **IHFM-20** | 20m 41" mini mobile antenna | 19.99 |
| **IHFM-30** | 30m 40" mini mobile antenna | 19.99 |
| **IHFM-40** | 40m 44" mini mobile antenna | 22.99 |
| **IHFM-75** | 75m 76" mini mobile antenna | 26.99 |
| **IHFM-80** | 80m 76" mini mobile antenna | 27.99 |
| **IHMM-144** | 2m 25w ¼ wave mag mt ant/BNC | 17.99 |
| **IHMM-220** | 220 25w ¼ wave mag mt ant/BNC | 17.99 |
| **IHMM-270** | 2m/440 25w ¼ wave mag mt ant/BNC | 17.99 |
| **IHMM-440** | 440 25w ¼ wave mag mt ant/BNC | 17.99 |
| **IHSB-2** | Flat stake bed mt w/SO-239 & ⅜-24 | 23.99 |
| **IHSB-4** | Triangular stake bed mt/HD rt ang SO-239/⅜-24 | 29.99 |
| **IHTH-1** | ⅜-24 trailer hitch antenna mount | 17.99 |

AES Price

## Alan Broadband (ALA)

**Zap Checker** Radio transmitter/bug detector $ 89.99

## ALINCO (ALI)

**DJ-C5T** 300mw cc size 2m/440 HT/lith ion/spkr $149.99
**EDC-16B** Cigarette lighter cable w/filter .... 21.99
**EDC-36** Angle plug power cable w/filter .... 24.99
**EME-17** Boom earphone mic ..... 32.99
**EME-18** Earphone ..... 8.99
**EDS-7** Mic adapter; EME-17/18 ..... 12.99
**EME-20** Tie-pin mic & earphone ..... 17.99
**EMS-49** Miniature lapel spkr/mic ..... 32.99
**EMS-50** Speaker/mic ..... 41.99
**ESC-34** Soft case w/belt clip ..... 13.99
**EBC-3** Belt clip; DJ180TH/280TH .....D .99
**EDC-45** Desk quick charger; 180TH/280TH .D 49.99
**EDC-49** Batt cgr; EBP-20/22/24/26/28N ....Δ 19.99
**EDC-55** Drop-in cgr; EBP30/31/32N; G1T ...Δ .99
**EDH-12** DC jack adapter; DJ-180/280TH ....Δ 9.99
**EME-11** Ear/mic w/PTT/VOX; DJ-180/280TH D 14.99
**ESC-18** Soft case; 180TH/EBP-26N .....Δ 2.99
**ESC-19** Soft case; 180TH/EBP-28N .....Δ 9.99

**DJ-196T** 5w 2m FM HT/batt/cgr/TTP ..... 139.99
**DJ-296T** 5w 220 FM HT/batt/cgr/TTP ..... 179.99
**DJ-496T** 5w 440 FM HT/batt/cgr/TTP ..... 149.99
**DJ-596T** 5w 2m/440 FM HT/NiMH/cgr/TTP D 209.99
**DJ-596T MK II** 5w 2m/440 HT/NiMH/cgr/TTP 209.99
**EBC-6** Mobile bracket ..... 15.99
**EBP-48N** 9.6v 700mah 5w nicad battery ... 64.99
**EBP-50N** 9.6v 700mah 5w NiMH battery ... 23.99
**EBP-51N** 9.6v 1500mah 5w NiMH battery . 37.99
**EBP-56N** 7.4v 1000mah lithion ion battery 49.99
**EDC-111** Charger for EBP-56N ..... 45.99
**EDC-16B** Cigarette lighter cable w/filter .... 21.99
**EDC-36** Angle plug power cable w/filter .... 24.99
**EDC-37** 13.8v power cable ..... 7.99
**EDC-43** Cig lighter cable ..... 10.99
**EDC-88** Quick charger; nicad battery packs 60.99
**EDC-97** Quick charger; MiMH battery packs 70.99
**EDH-30** Dry cell battery case ..... 15.99
**EJ-43U** Digital board for DJ-596T only ..... 109.99
**EJ-47U** Digital board; Mk II versions ..... 179.99
**EME-6** Earphone ..... 10.99
**EME-12** Headset w/earphone/mic/VOX ..... 71.99
**EME-13** Headset w/ear bud/mic/VOX ..... 71.99
**EME-15** Earphone/mic w/VOX ..... 56.99
**EME-17** Boom earphone mic ..... 32.99
**EME-20** Tie-pin mic & earphone ..... 17.99
**EMS-47** Spkr/mic w/volume control ..... 24.99
**ERW-4C** PC cable ..... 39.99
**ESC-36** Soft case for EBP-48N ..... 13.99
**SW-596** Windows prog software; DJ-596T . 29.99
**DJ-V5TH** 5w 2m/440 FM HT/batt/cgr/TTP .... 209.99
**EBP-46N** 9.6v 600mah 5w nicad battery ... 64.99
**EDC-16B** Cigarette lighter cable w/filter .... 21.99
**EDC-36** Angle plug power cable w/filter .... 24.99
**EDC-37** 13.8v power cable ..... 7.99
**EDC-43** Cig lighter cable ..... 10.99
**EDC-91** Quick charger ..... 60.99
**EDH-29** Dry cell case for 4-AA's ..... 12.99
**EME-6** Earphone ..... 10.99
**EME-12** Headset w/earphone/mic/VOX ..... 71.99
**EME-13** Headset w/ear bud/mic/VOX ..... 71.99
**EME-15** Earphone/mic w/VOX ..... 56.99
**EME-17** Boom earphone mic ..... 32.99
**EME-20** Tie-pin mic & earphone ..... 17.99
**EMS-8Z** Remote speaker/mic ..... 50.99
**EMS-47** Spkr/mic w/volume control ..... 24.99
**ESC-35** Soft case for EBP-45N/46N ..... 13.99
**DJ-S11T** 340mw 2m FM HT/battery holder .. 79.99
**EBC-6** Mobile bracket ..... 15.99

## Alinco - continued

AES Price

**EDC-78** Wall charger; (not for alkalines) ... 7.99
**EDH-18** 12v to 5.5v DC/DC conv/cig plug .. 32.99
**EME-6** Earphone ..... 10.99
**EME-12** Headset w/earphone/mic/VOX ..... 71.99
**EME-13** Headset w/ear bud/mic/VOX ..... 71.99
**EME-15** Earphone/mic w/VOX ..... 56.99
**EME-17** Boom earphone mic ..... 32.99
**EME-20** Tie-pin mic & earphone ..... 17.99
**EMS-47** Spkr/mic w/volume control ..... 24.99
**ESC-27** Soft case ..... 16.99
**DJ-S40T** 500mw 440 FM HT/battery holder . 89.99
**EBC-6** Mobile bracket ..... 15.99
**EBP-52N** 3.6v 500mah NiMH battery ..... 37.99
**EBP-53N** 6v 500mah NiMH battery ..... 45.99
**EBP-54N** 3.6v 1500mah NiMH battery ..... 49.99
**EDC-37** 13.8v power cable ..... 7.99
**EDC-43** Cig lighter cable ..... 10.99
**EDC-105** Drop-in NIMH battery cgr, less ps 24.99
**EDC-93** Wall ps for EDC-105 ..... 10.99
**EDH-31** Dry cell battery case ..... 12.99
**EME-6** Earphone ..... 10.99
**EME-12** Headset w/earphone/mic/VOX ..... 71.99
**EME-13** Headset w/ear bud/mic/VOX ..... 71.99
**EME-15** Earphone/mic w/VOX ..... 56.99
**EME-17** Boom earphone mic ..... 32.99
**EME-20** Tie-pin mic & earphone ..... 17.99
**EMS-8Z** Remote speaker/mic ..... 50.99
**EMS-47** Spkr/mic w/volume control ..... 24.99
**ERW-4C** PC cable ..... 39.99
**ESC-37** Soft case ..... 13.99
**DJ-X2T** 522KHz-1GHz cc size Rcvr/lith ion/cell blkd D 199.99
**EDC-36** Angle plug power cable w/filter .... 24.99
**EDC-37** 13.8v power cable ..... 7.99
**EDC-43** Cig lighter cable ..... 10.99
**EDH-27** Dry cell case w/charger ..... 38.99
**EDH-28** DC/DC converter w/cig plug ..... 35.99
**ESC-34** Soft case w/belt clip ..... 13.99
**DJ-X3T** .1MHz-1.3GHz AM/FM hand Rcvr/cell blkd 209.99
**EBP-52S** 3.6v 500mah NiMH battery ..... 37.99
**EDC-105** Drop-in NiMH battery cgr, less ps 24.99
**EDC-93** Wall ps for EDC-105 ..... 10.99
**EDH-31S** Dry cell battery case ..... 12.99
**ESC-37** Soft case ..... 13.99
**DJ-X10T** .1MHz-2GHz AM/FM/SB hand rcv/cell blkd 309.99
**EBP-33N** 4.8v 650mah nicad battery .....Δ 24.99
**EBP-34N** 4.8v 1200mah nicad battery ..... 84.99
**EBP-37N** 4.8v 700mah nicad battery ..... 34.99
**EDC-16B** Cigarette lighter cable w/filter .... 21.99
**EDC-36** Angle plug power cable w/filter .... 24.99
**EDC-37** 13.8v power cable ..... 7.99
**EDC-43** Cig lighter cable ..... 10.99
**EDC-88** Quick charger; nicad battery packs 60.99
**EDH-16** Dry cell battery case ..... 12.99
**EME-6** Earphone ..... 10.99
**ERW-4C** PC cable ..... 39.99
**ESC-28** Soft case for EBP-33N ..... 13.99
**ESC-29** Soft case for EBP-37N ..... 13.99
**ESC-30** Soft case for EBP-34N ..... 13.99
**DJ-X2000T** .1-2149MHz receiver/cell blocked 499.99
**EBP-33N** 4.8v 650mah nicad battery .....Δ 24.99
**EBP-34N** 4.8v 1200mah nicad battery ..... 84.99
**EBP-37N** 4.8v 700mah nicad battery ..... 34.99
**EDC-16B** Cigarette lighter cable w/filter .... 21.99
**EDC-36** Angle plug power cable w/filter .... 24.99
**EDC-37** 13.8v power cable ..... 7.99
**EDC-43** Cig lighter cable ..... 10.99
**EDC-88** Quick charger; nicad battery packs 60.99
**EDH-16** Dry cell battery case ..... 12.99
**EME-6** Earphone ..... 10.99
**ERW-4C** PC cable ..... 39.99
**ESC-28** Soft case for EBP-33N ..... 13.99

## Alinco - continued

AES Price

**ESC-29** Soft case for EBP-37N ..... 13.99
**ESC-30** Soft case for EBP-34N ..... 13.99
**DR-M06TH** 20w 6m FM Xcvr/TTP/encoder ... 259.99
**MB-130** Extra mobile bracket ..... 19.99
**HK-130** Hardware kit for MB-130 ..... 4.99
**PC-15B** Extra DC cable ..... 10.99
**DR-135T Mk II** Blk 50w 2m FM Xcvr/TTP mic 169.99
**DR-235T** Black 25w 220 FM Xcvr w/TTP mic .. 249.99
**DR-435T** Black 35w 440 FM Xcvr w/TTP mic D 259.99
**DR-435T Mk II** Blk 35w 440 FM Xcvr/TTP mic 269.99
**EDC-37** 13.8v power cable; ignition on/off 7.99
**EDC-43** Cig lighter cable; ignition on/off ... 10.99
**EJ-40U** Dig board; DR-135T orig/TP/235T/435T 119.99
**EJ-41U** 1200/9600 TNC unit ..... 139.99
**EJ-47U** Digital board; Mk II versions ..... 179.99
**ERW-4C** PC cable ..... 39.99
**MB-130** Extra mobile bracket ..... 19.99
**HK-130** Hardware kit for MB-130 ..... 4.99
**PC-15B** Extra DC cable ..... 10.99
**SW-620** Windows programming software .. 29.99
**DR-135TP** Black 50w 2m FM/TT/1200/9600 TNC .D 269.99
**DR-135TP Mk II** Blk 50w 2m FM/TT/1200/9600 TNC 269.99
**EDC-37** 13.8v power cable; ignition on/off 7.99
**EDC-43** Cig lighter cable; ignition on/off ... 10.99
**EJ-40U** Digital board; DR-135T/TP/235T/435T 119.99
**EJ-47U** Digital board; Mk II versions ..... 179.99
**ERW-4C** PC cable ..... 39.99
**MB-130** Extra mobile bracket ..... 19.99
**HK-130** Hardware kit for MB-130 ..... 4.99
**PC-15B** Extra DC cable ..... 10.99
**SW-620** Windows programming software .. 29.99
**CC-150** Cloning cable for DR-150TQ .....D 4.99
**DR-605TQ** 50/35w 2m/440 FM/TT/EJ24U tone sq 339.99
**EMS-14** Desk top microphone ..... 114.99
**EDS-8** Adapter for EMS-14 w/DR-605TQ 28.99
**MB-130** Extra mobile bracket ..... 19.99
**HK-130** Hardware kit for MB-130 ..... 4.99
**PC-15B** Extra DC cable ..... 10.99
**DR-620T** 50/35w 2m/440 FM Xcvr/TTP ..... 339.99
**EDS-9** Separation kit ..... 45.99
**EJ-47U** Digital board for DR-620T ..... 179.99
**EJ-50U** TNC unit for DR-620T ..... 129.99
**MB-130** Extra mobile bracket ..... 19.99
**HK-130** Hardware kit for MB-130 ..... 4.99
**PC-15B** Extra DC cable ..... 10.99
**SW-620** Windows programming software .. 29.99
**DX-70TH** Comp HF Xcvr/100w 6m/mob bkt .. 699.99
**DM-330MVT** 30A switching ps/meter/32A surge 179.99
**EBC-8** Front control head bracket ..... 15.99
**EBC-9** Extra mobile bracket ..... 32.99
**EDS-4** Rem mt acc kit w/5' cable, 2 covers 41.99
**EDS-5** 15' microphone extension cable ..... 36.99
**EDS-6** 15' remote cable ..... 68.99
**EDX-2** 160-10m 200w wire auto tuner ..... 319.99
**EMS-14** Desk top microphone ..... 114.99
**PC-25** Extra DC cable ..... 35.99
**DX-77T** 160-10m HF Xcvr ..... 669.99
**DM-330MVT** 30A switching ps/meter/32A surge 179.99
**EDS-5** 5' microphone extension cable ..... 36.99
**EDX-2** 160-10m 200w wire auto tuner ..... 319.99
**EMS-14** Desk top microphone ..... 114.99
**ERW-4C** PC cable ..... 39.99
**PC-25** Extra DC cable ..... 35.99

## ALPHA DELTA (ALP)

Extra **arc-plug** cartridge for **LT** or LT/N .....D $ .99
**RT-N/2G** 200w 1 GHz type N protector .....D 9.99
**ATT-3G50** 200w 3GHz type N surge protector 59.99
**ATT-3G50-HP** 2kw 3GHz type N surge protector 59.99
**ATT-3G50U** 200w 500MHz surge protector .... 49.99
**ATT-3G50U-HP** 2kw 500MHz surge protector . 49.99


Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

## Alpha Delta - continued

| | AES Price |
|---|---|
| **ATT**/3G50 Extra 200w arc-plug cartridge | 14.99 |
| **ATT-HP**/3G50HP Extra 2kw arc-plug cart | 14.99 |
| **Delta-2** 500 MHz 2-pos coax switch/protector | 49.99 |
| **Delta-2/N** 1.3 GHz 2-pos type N switch/protector | 64.99 |
| **Delta-4** 500 MHz 4-pos coax switch/protector | 79.99 |
| **Delta-4/N** 1.3 GHz 4-pos type N switch/protector | 89.99 |
| **D-4** Extra arc-plug; Delta-2/2N/4/4N | 9.99 |
| **Delta-C** Kit w/ctr ins/2 end ins/static protect | 29.99 |
| **SEP** Extra arc-plug cart; DX-Ultra/Delta-C | 15.99 |
| **Delta-CIN** Antenna end insulator .....each | 1.99 |
| **DX-80** 80m 134' complete dipole antenna | 49.99 |
| **DX-40** 40m 67' complete dipole antenna | 39.99 |
| **DX-20** 20m 34' complete dipole antenna | 39.99 |
| **DX-A** 160-80-40m twin sloper antenna | 59.99 |
| **DX-B** 160-80-40-30m 60' sloper ant | 69.99 |
| **DX-CC** 80-10m 5-band 82' no trap, no tuner dipole | 119.99 |
| **DX-DD** 80/40m 82' Delta Dipole antenna | 89.99 |
| **DX-EE** 40-10m 4-band 40' no trap, no tuner dipole | 99.99 |
| **DX-LB** 160-80-40m 100' shortened dipole | 119.99 |
| **DX-LB Plus** 160/80/40/20/15/10m 100' short dip | 149.99 |
| **DX-SWL** AM broadcast-13m 60' SWL sloper ant | 79.99 |
| **DX-Ultra** AM broadcast-30MHz 80' SWL dipole | 119.99 |
| **SEP** Extra arc-plug cart; DX-Ultra/Delta-C | 15.99 |
| **Outpost** Base tripod mtg sys for mobile ant | 199.99 |
| **Pathfinder** 1.8-30Mhz+6m dig auto ant tuner | 399.99 |
| **Pathminder** 1.8-54 dig 6pos coax switch/protector | 149.99 |
| **SK-1** Straight Kent key | 129.99 |
| **SP-1** Single paddle Kent key | 139.99 |
| **TP-1** Twin paddle iambic Kent key | 149.99 |
| **VK-1** Vail Correspondent Kent straight key | 198.99 |
| **Basic Tech**nology Amateur Radio video & book | 39.99 |

**Also see OUTBACKER**

## AMECO PUBLICATIONS (AME)

| | |
|---|---|
| **4-01** Code Course Instruction Booklet | $ 2.99 |

### CODE COURSES - CASSETTE TAPES

| | |
|---|---|
| **100-T** Junior code tape, 0-7½ wpm | $ 5.95 |
| **107-PC-2** IBM Morse Code Course, version 2.0 | 29.95 |

### CODE PRACTICE OSCILLATORS & CODE KEYS

| | |
|---|---|
| **K-1** Bakelite type key | $ 10.95 |
| **K-4** Brass type key | 16.95 |
| **OCM-2K** Code oscillator & CW monitor kit | 19.99 |
| **OCM-2W** Wired oscillator & CW monitor | 24.99 |

### PREAMPLIFIERS

| | |
|---|---|
| **TPA** HF receive preamp & indoor active ant | $ 76.99 |
| **P-9T** Power supply for TPA | 9.99 |
| **PT-3** 2-54 MHz transceiver preamp | 124.99 |
| **P-12T** Power supply for PT-3 | 9.99 |

### FILTERS

| | |
|---|---|
| **HP-75T** 75 ohm high-pass filter | $ 12.99 |
| **HP-300T** 300 ohm high-pass filter | 12.99 |

## AMERITRON (AMR)

| | |
|---|---|
| **AL-80B** 1kw PEP out linear amp (3-500Z) | 1199.99 |
| **AL-82** 1.5kw PEP out linear amp (2 3-500Zs) | 2099.99 |
| **AL-572** 1.3kw PEP out linear amp (4 572Bs) | 1299.99 |
| **AL-800** 1250w PEP out linear (3CX800A7) | 1629.99 |
| **AL-800H** 1.5kw PEP out amp (2 3CX800A7) | 2399.99 |
| **AL-811** 600w PEP out linear amp (3 811As) | 599.99 |
| **AL-811H** 800w PEP out linear amp (4 811As) | 749.99 |
| **AL-1200** 1.5kw PEP out linear (3CX-1200A7) | 2199.99 |
| **AL-1500** 1.5kw out linear amplifier (8877) | 2599.99 |
| **ALS-500M** 500w PEP out solid state mob amp | 699.99 |
| **ALS-600** 600w PEP out solid state amp w/ps | 1129.99 |
| **ARB-704** Amplifier Xcvr interface buffer | 49.99 |
| **PNP-5M** Plug & play cable; FT-847 | 15.99 |
| **PNP-7D** Plug & play cable; TS-50S/870S/2000 | 15.99 |
| **PNP-8D** Plug & play cable; FT-920/1000 series | 15.99 |
| **PNP-8M** Plug & play cable; FT-817/840 | 15.99 |
| **PNP-35** Plug & play cable; FT-100 series | 15.99 |

## Ameritron - continued

| | AES Price |
|---|---|
| **ARB-704I2** Amp Xcvr interface; IC-706 series | 49.99 |
| **PNP-13D** Plug & play cable; IC-706 series | 15.99 |
| **ATP-100** Amplifier tuning pulser | 49.99 |
| **ATP-102** Deluxe amplifier tuning pulser | 59.99 |
| **ATR-20** 1.2kw PEP antenna tuner | 419.99 |
| **ATR-30** 3kw PEP antenna tuner | 549.99 |
| **ADL-1500** 1.5kw dummy load with oil | 69.99 |
| **ADL-2500** 2.5kw dummy load with fan | 189.99 |
| **ICP-120** 120v inrush protector | 79.99 |
| **ICP-240** 240v inrush protector | 79.99 |
| **AWM-30** 3kw PEP SWR/wattmeter/rem sens | 139.99 |
| **QSK-5** Stand alone T/R switch | 329.99 |
| **QSK-5PC** PC board kit; T/R switch | 229.99 |
| **CF-5** Cooling fan for QSK-5 | 39.99 |
| **RCS-4** 4-pos wireless remote coax switch | 129.99 |
| **RCS-8V** 160-2m 5-pos remote coax switch | 139.99 |
| **RCS-8VN** 160-2m 5-pos N rem coax switch | 149.99 |

Note: RCS-8V/VN require 8-wire control cable.

| | |
|---|---|
| **RCS-10** DC-100MHz 8-pos remote coax switch | 149.99 |

Note: RCS-10 requires 4-wire control cable.

## ANTENEX (ANX)

| | |
|---|---|
| **AB-FT** 118-896MHz ¼ wave NMO whip | $ 16.99 |
| **AB-SCANC** VHF/UHF/800MHz NMO mob scan ant | 29.99 |
| **BB-1442N** 144-174 2.4db no gnd plane NMO mob | 39.99 |
| **BB-1443** 144-174MHz 3db 49" NMO mobile | 39.99 |
| **BB-4303** 430-450 3db 11¹³⁄₁₆" NMO mobile | 34.99 |
| **CB-144/440C** 2m/440 2/5db NMO mobile | 49.99 |
| **CWB-1443** Self-tuning 144-156 3db NMO mob | 49.99 |
| **CWB-4405C** Self-tuning 440-470 5db NMO mob | 49.99 |
| **GB-8PSTI** NMO mag mt w/coax & teflon PL259 | 29.99 |
| **GPSU-15GBNC** GPS mag mt ant w/coax & BNC | 99.99 |
| **LBMB-9034** Mirror mt ¾" hole L-bracket | 10.99 |
| **MB-8PST** NMO hole mt w/coax & teflon PL259 | 15.99 |
| **TRAB-1420** 142-164 Phantom whipless NMO | 59.99 |
| **TRAB-4303** 430-450 3db Phantom whipless NMO | 29.99 |
| **VTPM** NMO mt;up to 1" thick plate (UHF barrel) | 15.99 |
| **Y-1363** 136-150 3el 7.1db gold welded beam | 119.99 |
| **Y-4303** 430-450 3el 7.1db gold welded beam | 99.99 |

## Antenna Specialists (ASP)

| | |
|---|---|
| **AP-143** 2m 23" on glass cell look-alike ant D | $ 59.99 |
| **APR143** 2m 23" on glass cell look-alike ant | 69.99 |
| **APR151.3** 2m 3db 33" on glass antenna | 69.99 |
| **KAV-382** On glass replacement mtg kit | 13.99 |

## Antenna Supermarket (ANT)

| | |
|---|---|
| **Eaves**dropper* 60-11m trap dipole SWL ant | $ 89.99 |

*Specify **SO-239** or **twin**-lead

## ANTENNA WORLD (ANW)

| | |
|---|---|
| **COM136-4500NP** VHF/UHF port dipole/BNC | $ 19.99 |

## ARROW Antenna (ARA)

| | |
|---|---|
| **146/437-10** 3 el 2m/7 el 440 handheld beam | $ 73.00 |
| **146/437-10BP** 3el 2m/7el 440 HH split bm beam | 79.00 |
| **10w duplexer** (installs in boom) w/BNC | 59.00 |
| 10w **duplexer** (installs in boom) w/**SMA** | 64.00 |

## ARTSCI (ART)

| | |
|---|---|
| **Lost Users** Manuals | $ 19.95 |
| **Repeater Map**book 11th edition | 14.99 |

## ASTRON (ASR)

| | |
|---|---|
| **RS-4L** 3A ps, 4A surge, w/cig lighter socket | $ 49.99 |
| **RS-7A** 5A power supply, 7A surge | 59.99 |
| **RS-10A** 7.5A power supply, 10A surge | 69.99 |
| **RS-12A** 9A power supply, 12A surge | 79.99 |
| **RS-12S** 9A ps, 12A surge, w/speaker | 89.99 |
| **RS-20A** 16A power supply, 20A surge | 99.99 |
| **RS-35A** 25A power supply, 35A surge | 149.99 |
| **RS-35A/220V** 220v 25A ps, 35A surge | 169.99 |
| **RS-50A** 37A power supply, 50A surge | 219.99 |

## Astron - continued

| | AES Price |
|---|---|
| **RS-70A** 57A power supply, 70A surge | 259.99 |
| **RS-20M** 16A ps w/meters, 20A surge | 119.99 |
| **RS-35M** 25A ps w/meters, 35A surge | 169.99 |
| **RS-50M** 37A ps w/meters, 50A surge | 239.99 |
| **RS-70M** 57A ps w/meters, 70A surge | 289.99 |
| **VS-20ML** Variable 16A ps/meters, 20A surge | 139.99 |
| **VS-35M** Variable 25A ps/meters, 35A surge | 189.99 |
| **VS-50M** Variable 37A ps/meters, 50A surge | 259.99 |
| **RM-35M** 25A rack mt ps/meters, 35A surge | 249.99 |
| **RM-50M** 37A rack mt ps/meters, 50A surge | 279.99 |
| **RM-60M** 50A rack mt ps/meters, 55A surge | 359.99 |
| **SS-25** 20A switching ps, 25A surge | 109.99 |
| **SS-25M** 20A switching ps/meters, 25A surge | 129.99 |
| **SS-30** 25A switching ps, 30A surge | 119.99 |
| **SS-30M** 25A switching ps/meters, 30A surge | 139.99 |
| **12/115** 200w 12vdc-115vac inverter .....Δ | 49.99 |
| **N2412-12** 10A 22-32vdc to 13.8vdc converter | 49.99 |
| **N2412-24** 20A 22-32vdc to 13.8vdc converter | 79.99 |

## BMI (BMI)

| | |
|---|---|
| **972AD** 14" 12/24-hour wall clock | $ 32.99 |
| **973A** 12" 24-hour wall clock | 49.99 |

## B & W (B&W)

| | |
|---|---|
| **AP-10A** 51" portable 40/20/15/10/6/2m ant | $ 89.99 |
| **AT-55** 40/20/15/10m 55' trap dipole ant ....D | 89.99 |
| **AT-110** 80/40/20/15/10m 110' trap dipole .D | 99.99 |
| **AS-160** 160/80/40/20m 137' trap dipole ....D | 149.99 |
| **AS-40** 40/20/15/10m 40' trap dipole ant ...D | 149.99 |
| **AS-20** 20/15/10m 20' trap dipole antenna .D | 99.99 |
| **AC-1.8-30** Continuous 1.8-30 MHz vee ant | 209.99 |
| **ACS-1.8-30** Continuous 1.8-30MHz stainless vee | 344.99 |
| **AXS-160** 160/30m 96' trap dipole antenna D | 69.99 |
| **AXS-80** 80/40/15m 65' trap dipole ant .....D | 99.99 |
| **AC-5-30** 5-30 MHz 65' folded dipole .....D | 179.99 |
| **ACS-5-30** 5-30 Mhz stainless 65' folded dipole D | 269.99 |
| **BWDS-1.8-30** 1.8-30 stainless 90' folded dip D | 319.99 |
| **BWD-20** 14-30 MHz 20' folded dipole | 179.99 |
| **BWD-45** 7-30 MHz 45' folded dipole | 189.99 |
| **BWD-65** 4-30 MHz 65' folded dipole | 199.99 |
| **BWDS-65** 4-30 MHz stainless 65' folded dipole | 319.99 |
| **BWD-90** 1.8-30 MHz 90' folded dipole | 209.99 |
| **BWDS-90** 1.8-30 stainless 90' folded dipole | 339.99 |
| **FDMK** Mtg kit; folded dipole w/3 pole installation | 39.99 |

## BELDEN (BEL)

### 52 OHM COAXIAL CABLE

| | | |
|---|---|---|
| **8216** | RG-174 (sub-miniature) .....per ft. | $ .28 |
| **8216** | .....**100** ft. Roll | 26.99 |
| **8216** | .....**500** ft. Roll | 94.99 |
| **8216** | .....**1000** ft. Roll | 174.99 |
| **9201** | RG-58 (solid center) .....per ft.,Δ | .16 |
| **9201** | .....**100** ft. cut,Δ | 14.99 |
| **9201** | .....**500** ft. Roll,Δ | 59.99 |
| **8240** | RG-58U (solid center) .....per ft. | .27 |
| **8240** | .....**100** ft. Roll | 25.99 |
| **8240** | .....**500** ft. Roll | 94.99 |
| **8240** | .....**1000** ft. Roll | 179.99 |
| **8259** | RG-58AU (stranded center) .....per ft. | .29 |
| **8259** | .....**100** ft. Roll | 27.99 |
| **8259** | .....**500** ft. Roll | 99.99 |
| **8259** | .....**1000** ft. Roll | 179.99 |
| **8219** | RG-58AU (stranded, foam) .....per ft. | .32 |
| **8219** | .....**100** ft. cut | 29.99 |
| **8219** | .....**500** ft. Roll | 104.99 |
| **8219** | .....**1000** ft. Roll | 189.99 |
| **8262** | RG-58CU (non-contaminating) ...per ft. | .38 |
| **8262** | .....**100** ft. cut | 34.99 |
| **8262** | .....**500** ft. Roll | 129.99 |

## Belden - continued

| | | AES Price |
|---|---|---|
| 8262 | 1000 ft. Roll | 239.99 |
| 9258 | RG-8X (stranded, foam) per ft. | .39 |
| 9258 | 100 ft. cut | 34.99 |
| 9258 | 500 ft. Roll | 129.99 |
| 9258 | 1000 ft. Roll | 239.99 |
| 8237 | RG-8U per ft. | .64 |
| 8237 | 100 ft. Roll | 59.99 |
| 8237 | 500 ft. Roll | 249.99 |
| 8214 | RG-8U (foam) per ft. | .59 |
| 8214 | 100 ft. Roll | 54.99 |
| 8214 | 500 ft. Roll | 259.99 |
| 8214 | 1000 ft. Roll | 489.99 |
| 9913 | RG-8U (low loss) 100 ft. Roll | 59.99 |
| 9913 | 250 ft. Roll | 129.99 |
| 9913 | 500 ft. Roll | 239.99 |
| 9913F7 | RG-8U (low loss, flexible) per ft. | .87 |
| 9913F7 | 100 ft. Roll | 79.99 |
| 9913F7 | 250 ft. Roll | 159.99 |
| 9913F7 | 500 ft. Roll | 289.99 |
| 9251 | RG-8A (non-contaminating) per ft.,Δ | .64 |
| 9251 | 100 ft. cut,Δ | 59.99 |
| 9251 | 500 ft. Roll,Δ | 279.99 |
| 8267 | RG-213 (non-contaminating) per ft. | .87 |
| 8267 | 100 ft. cut | 79.99 |
| 8267 | 500 ft. Roll | 349.99 |

### 75 OHM COAXIAL CABLE

| | | |
|---|---|---|
| 8241 | RG-59U (73 ohm, solid center) per ft. | $ .29 |
| 8241 | 100 ft. Roll | 26.99 |
| 8241 | 500 ft. Roll | 84.99 |
| 8241 | 1000 ft. Roll | 159.99 |
| 8238 | RG-11 (75 ohm, stranded center) per ft. | .89 |
| 8238 | 100 ft. cut | 84.99 |
| 8238 | 500 ft. Roll | 309.99 |
| 8213 | RG-11 (75 ohm, solid, foam) per ft. | .79 |
| 8213 | 100 ft. cut | 69.99 |
| 8213 | 500 ft. Roll | 259.99 |

### ROTOR CABLE

| | | |
|---|---|---|
| 8484 | 4-wire; 4-20 gauge per ft. | $ .27 |
| 8484 | 100 ft. cut | 24.99 |
| 8484 | 500 ft. Roll | 94.99 |
| 8484 | 1000 ft. Roll | 179.99 |
| 8448 | 8-wire; 2-18, 6-22 gauge per ft. | .34 |
| 8448 | 100 ft. cut | 29.99 |
| 8448 | 500 ft. Roll | 129.99 |
| 8448 | 1000 ft. Roll | 249.99 |
| 9405 | 8-wire; 2-16, 6-18 gauge per ft. | .74 |
| 9405 | 100 ft. cut | 69.99 |
| 9405 | 500 ft. Roll | 319.99 |
| 9405 | 1000 ft. Roll | 599.99 |

### COPPERWELD ANTENNA WIRE

| | | |
|---|---|---|
| 8000 | No. 14 stranded antenna wire per ft. | $ .24 |
| 8000 | 100 ft. Roll | 20.99 |
| 8000 | 1000 ft. Roll | 179.99 |

### No. 8 ALUMINUM GROUND WIRE

| | | |
|---|---|---|
| 8018 | Multiples of 50 ft. each | $ 14.99 |
| 8018 | 500 ft. Roll,Δ | 69.99 |

**Note: All above roll pricing is for rolls as shown only; all other lengths, even if more than roll length shown or a multiple of roll length shown, are sold at the per ft. price.**

### FOAM COAX w/PL-259s ON BOTH ENDS

| | | |
|---|---|---|
| 9354 | 50' RG-8U foam | $ 49.99 |
| 9355 | 75' RG-8U foam | 69.99 |
| 9356 | 100' RG-8U foam | 79.99 |

## BELMERIT (BLM)

| | | |
|---|---|---|
| DM-80 | Credit card size multimeter w/case | $ 34.99 |
| DX-405 | 10 func/39 range+20MHz freq multimeter | 69.99 |

## BENCHER (BEN)

| | | AES Price |
|---|---|---|
| BY-1 | lambic keyer paddle w/black base | $109.99 |
| BY-2 | lambic keyer paddle w/chrome base | 129.99 |
| BY-3 | lambic keyer paddle, gold plated Δ | 299.99 |
| BY-4 | lambic paddle/blk base/gold components | 169.99 |
| 170-82 | Merc paddle drop ship; mfgr engrave call $50 | 449.99 |
| ST-1 | Single lever keyer paddle, black base | 109.99 |
| ST-2 | Sgl lever kyr paddle, chrome base | 129.99 |
| RJ-1 | Dlx hand key w/navy knob/black base | 105.99 |
| RJ-2 | Dlx hand key w/navy knob/chrome base | 129.99 |
| XW-1 | Low voltage DC fuse panel D | 9.99 |
| XW-20 | Fuse kit D | .99 |
| XW-39/XW-30 | Crimp terminal kit D | .99 |
| XW-40 | Screw terminal kit D | .99 |
| HWK | Hardware kit; ZA-1A for 2" boom D | .99 |
| YA-1 | 1kw low pass filter | 85.99 |

## Bounty Hunter (BOU)

| | | |
|---|---|---|
| Fast Tracker | Metal detector/2-tone target ID | $ 99.99 |
| Tracker IV | Metal detector/3-mode | 129.99 |
| Quick Draw II | Metal detector/full motion | 199.99 |
| Sharp Shooter II | Metal detector/LCD readout | 249.99 |
| Land Star | Metal detector/3-tone audio discrim | 299.99 |
| Land Ranger | Metal detector/programmable | 399.99 |
| Time Ranger | Metal detector/top-of-the-line | 499.99 |
| Carry Bag | For Bounty Hunter metal detectors | 29.99 |
| 10" Coil | 10" magnum coil; adds depth | 49.99 |

## BUCKMASTER (BUC)

| | | |
|---|---|---|
| HamCall | CD-ROM ham listings | $ 50.99 |

## BUSHNELL (BUS)

| | | |
|---|---|---|
| 13-0430 | 4x30 LiteVision compact binoculars | $ 13.99 |
| 13-0721 | 7x21 compact Falcon binoculars D | 24.99 |
| 13-1226 | 12x25 camo FRP compact binocs | 29.99 |
| 13-1250 | 12x50 wide angle Powerview binocs | 59.99 |
| 13-2514 | 8x21 black compact binoculars | 21.99 |
| 13-3410 | 7x35 Falcon binoculars | 29.99 |
| 26-3150 | Night Vision 3.1x50 binocular | 459.99 |
| 78-0040 | 90mm refractor telescope D | 399.99 |
| 78-0103 | 1.25" erecting prism Δ | 69.99 |
| 78-0200 | 4.5" reflector telescope D | 269.99 |
| 78-2010 | 4.5" reflector telescope | 199.99 |
| 78-8000 | 8" Dobsonian reflector telescope D | 349.99 |
| 78-9440 | 60mm refractor telescope D | 89.99 |
| 78-9470 | 60mm refractor telescope w/zoom Δ | 129.99 |
| 78-0101 | 1.25" 9mm Kellner eye; 0040/6000/8000 Δ | 29.99 |
| 78-0102 | 1.25" 25mm Kellner eyepiece Δ | 29.99 |
| 78-0105 | 1.25" 2x Barlow lens; 0040/0200/6000/8000 Δ | 39.99 |
| 10-1907 | Speedster sports speed gun | 199.99 |

## BUTTERNUT (BUT)

| | | |
|---|---|---|
| Skyhawk 3X10 | Triband 10 el, 24' beam w/bauln * | $999.99 |

***Skyhawk 3X10 is drop-shipped (shipped direct to you from the Butternut factory). On factory drop-shipments we prefer payment in full with order, however, we will accept your credit card with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your drop-shipped merchandise. Shipment is FOB Wood Dale, Illinois via UPS, COD for freight charges only. Freight charges will be collected upon delivery by the carrier. Please allow sufficient time for delivery on this special order item.**

| | | |
|---|---|---|
| HF-6VX | 80/40/30/20/15/10m 26' vert ant | 349.99 |
| HF-9VX | 80/40/30/20/17/15/12/10/6m 26' vert | 399.99 |
| A17-12 | 17 & 12m kit for HF-6VX | 65.99 |
| CPK | Counterpoise kit | 139.99 |
| MPS | Mounting post sleeve | 12.99 |
| RMK-II | Roof mounting kit w/radials | 169.99 |
| STR-II | Radial kit only | 129.99 |
| TBR-160S | 160m resonator | 129.99 |
| HF-2V | 80/40m 32' vertical | 269.99 |

## Butternut - continued

| | | AES Price |
|---|---|---|
| 30-MRK | 30m resonator for HF-2V | 119.99 |
| TBR-160S | 160m resonator | 129.99 |

## CQ (CQX)

| | | |
|---|---|---|
| Building and Using Baluns and Ununs | | $ 19.99 |
| Lew McCoy on Antennas | | 15.99 |
| Shortwave Propagation Handbook | | 19.99 |
| W6SAI HF Antenna Handbook | | 19.99 |

## CSS (CSS)

| | | |
|---|---|---|
| Pacterm 98 | Win software; Kantronics TNCs | $ 79.99 |
| PK-Term 99 | Win terminal prog; PK-12/96/232 | 79.99 |

## CABLE X-PERTS (CAB)

| | | |
|---|---|---|
| CXP1318FX | CXP1318FX (low loss, flexible) per ft. | $ .59 |
| CXP1318FX | 500 ft. Roll | 269.99 |
| CXP1318FC-3 | 3' CXP1318FX/silver teflon PL259s | 14.99 |
| CXP1318FC-50 | 50' CXP1318FX/silver teflon PL259s | 48.99 |
| CXP1318FC-75 | 75' CXP1318FX/silver teflon PL259s | 67.99 |
| CXP1318FC-100 | 100' CXP1318FX/silver teflon PL259s | 84.99 |
| CXP1318FC-150 | 150' CXP1318FX/silver teflon PL259s | 121.99 |
| CXP1318FN-3 | 3' CXP1318FX/type N males | 19.99 |
| CXP1318FN-75 | 75' CXP1318FX/type N males | 81.99 |
| CXP1318FN-100 | 100' CXP1318FX/type N males | 98.99 |
| CXP1318FN-125 | 125' CXP1318FX/type N males | 116.99 |
| CXP008C-3 | 3' RG8 foam/silver teflon PL259s | 12.99 |
| CXP008C-6 | 6' RG8 foam/silver teflon PL259s | 14.99 |
| CXP008C-25 | 25' RG8 foam/silver teflon PL259s | 25.99 |
| CXP008C-50 | 50' RG8 foam/silver teflon PL259s | 37.99 |
| CXP008C-75 | 75' RG8 foam/silver teflon PL259s | 49.99 |
| CXP008C-100 | 100' RG8 foam/silver teflon PL259s | 61.99 |
| CXP008C-125 | 125' RG8 foam/silver teflon PL259s | 77.99 |
| CXP213C-6 | 6' RG213/silver teflon PL259s | 14.99 |
| CXP213C-15 | 15' RG213/silver teflon PL259s | 22.99 |
| CXP213C-25 | 25' RG213/silver teflon PL259s | 25.99 |
| CXP213C-50 | 50' RG213/silver teflon PL259s | 37.99 |
| CXP213C-75 | 75' RG213/silver teflon PL259s | 49.99 |
| CXP213C-100 | 100' RG213/silver teflon PL259s | 61.99 |
| CXP08XCC-3 | 3' RG8X clear/silver teflon PL259s | 11.99 |
| CXP08XC-25 | 25' RG8X/silver teflon PL259s | 18.99 |
| CXP08XC-50 | 50' RG8X/silver teflon PL259s | 24.99 |
| CXP08XC-75 | 75' RG8X/silver teflon PL259s | 28.99 |
| CXP08XC-100 | 100' RG8X/silver teflon PL259s | 32.99 |
| CXP058ARBS-3 | 3' RG58/BNC male- SO-239 | 15.99 |
| CXP142SBJ-3 | 3' RG142/SMA male - BNC female | 19.99 |
| CXP08XCB-3 | 3' RG8X/male BNCs | 13.99 |
| CXP08XCB-6 | 6' RG8X/male BNCs | 14.99 |
| CXP316RSSO-3 | 3' RG316/SMA male - SO-239 | 19.99 |
| CXP522-6 | 6' keyer hook-up cable w/S-267 plug | 19.99 |
| 235 | 1" tinned copper ground braid per ft. | .99 |
| 235 | 100 ft. Roll | 92.99 |
| 2332 | ½" tinned copper ground braid per ft. | .59 |
| 2332 | 100 ft. Roll | 52.99 |
| AZ-10 | 10ga red/black DC power cord per ft | .39 |
| AZ-10 | 100 ft. Roll | 29.99 |
| AZ-12 | 12ga red/black DC power cord per ft | .29 |
| AZ-12 | 100 ft. Roll | 19.99 |

## CASTLE RIDGE (CRO)

### SOLID COPPERWELD ANTENNA WIRE

| | | |
|---|---|---|
| AN-122 | 100 feet No. 12 | $ 29.99 |
| AN-123 | 150 feet No. 12 | 39.99 |
| AN-124 | 250 feet No. 12 | 59.99 |
| AN-126 | 500 feet No. 12 | 99.99 |
| AN-128 | 1000 feet No. 12 | 179.99 |
| AN-142 | 100 feet No. 14 | 24.99 |
| AN-143 | 150 feet No. 14 | 29.99 |
| AN-144 | 250 feet No. 14 | 39.99 |
| AN-146 | 500 feet No. 14 | 69.99 |
| AN-148 | 1000 feet No. 14 | 119.99 |
| AN-181 | 250 feet No. 18 | 17.99 |


Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

## Castle Ridge - continued AES Price

AN-182 500 feet No. 18 ..... 29.99

## CELESTRON (CEL)

4020 40x dissecting microscope ..... $ 79.99
4030 40-500x educational microscope ..... 119.99
4050 40/100/400x biological microscope ..... 199.99
11015 Celestar 8 telescope .....D 999.99
94162 Solar filter for Nexstra 8/Celestar 8 79.99
11021 NexStar 8i telescope .....special order 1199.99
93593 Standard tripod ..... 149.99
93962 NexStar hand control ..... 149.99
11022 NexStar 8i telescope/tripod/hand control 1299.99
93501 Heavy duty tripod ..... 299.99
93963 GPS module - CN16 ..... 199.99
11033 NexStar 5i telescope ..... 899.99
93497 Standard tripod ..... 149.99
93962 NexStar hand control ..... 149.99
93963 GPS module - CN16 ..... 199.99
11051 G-5 w/motor drive telescope .....D 679.99
11052 Nexstar 8 GPS telescope ..... 1999.99
11053 NexStar 11 GPS telescope ..... 2999.99
21016 C-4R refractor telescope ..... 429.99
21019 C-6R refractor telescope ..... 799.99
21052 FirstScope 60AZ refractor telescope ... 99.99
21072 FirstScope 80EQ-WA refractor telescope ...D 199.99
21086 FirstScope 80EQ refractor telescope ... 299.99
94135 Solar filter for Firstscope 80EQ/WA . 34.99
22062 NexStar 60GT telescope ..... 249.99
22082 NexStar 80GT telescope ..... 349.99
302160 Soft case for Nexstar 60/80 .....Δ 59.99
94135 Solar filter for Nexstar 60GT/80GT .. 34.99
31034 Tabletop 76 reflector telescope ..... 99.99
31044 FirstScope 114 4.5" reflector telescope .. 249.99
31056 C-6N reflector telescope ..... 399.99
31132 NexStar 130GT reflector telescope ..... 399.99
31142 NexStar 114GT reflector telescope ..... 439.99
52200 60mm pro zoom spotting scope ..... 199.99
52211 60mm wildlife zoom spotting scope/tripod 169.99

### LENSES (not for 31034)

93312 1.25" 17mm ocular Plossl lens .....D $ 49.99
93318 1.25" 9mm Omni lens ..... 49.99
93320 1.25" 15mm Omni lens ..... 49.99
93326 1.25" 2x Omni Barlow lens ..... 59.99
93351 1.25" 7.5mm Utima lens ..... 129.99
93352 1.25" 12.5mm Utima lens ..... 129.99
93353 1.25" 18mm Utima lens ..... 129.99
93387 1.25" 5mm X-Cel lens ..... 89.99
93389 1.25" 10mm X-Cel lens ..... 89.99
93391 1.25" 18mm X-Cel lens ..... 89.99
93507 1.25" 2x deluxe Barlow lens .....D 59.99
94303 Plossl lens/filter kit w/carrying case † 99.99
51630 Star pointer finderscope ..... 30.99
93590 Red Astro Lite flashlight ..... 5.99
93700 CD-ROM "The Sky for Celestron" ..... 29.99
93720-40 Planisphere & planet finder .....D 6.99
93722 Sky Map ..... 19.99
94108 Diagonal, erect image 90° ..... 49.99
94119-A 1.25" moon filter ..... 15.99
94119-10 Eyepc filter set (21/80A/ND13/polarizing) 49.99
94126-A Model A LPR filter; for 1¼" eyepieces 69.99

**Sorry, no exports on Celestron products.**

## CENTAUR (CEN)

B11W10-50 1:1 3kw PEP balun for dipole ..D $ 54.99
B11Y10-50 1:1 3kw PEP balun for yagi .....D 54.99
B41Y10-50 4:1 3kw PEP balun for yagi .....D 69.99
B41LW10-50 4:1 ladder line to coax balun .D 69.99

## Channel Master (CHA)

9521A Prog light duty rotor/IR rem cont/3-wire $ 99.99

## CLOCKS

AES Price

BMI 972AD 14" 12/24-hour wall clock ..... $ 32.99
BMI 973A 12" 24-hour wall clock ..... 49.99
MFJ 105C 24-hour quartz wall clock ..... 19.99
MFJ 107B 24-hour digital clock ..... 9.99
MFJ 108B 24/12-hour dual disp digital clock 19.99
MFJ 112B Deluxe world map clock ..... 24.99
MFJ 113 24/12-hr 1.8" LED clock/batt back-up 19.99
MFJ 115 DX'er 24-hr analog world wall clock . 24.99
MFJ 116DC 12-hour 12vdc LED clock .....Δ 9.99
MFJ 118 Giant 24/12 hour LCD clock ..... 24.99
MFJ 123 Eternity solar atomic clock ..... 79.99
MFJ 125 Calendar 24-hour analog wall clock 29.99
ORE RM-116E Exactset radio controlled clock 39.99

## COAX SEAL (UNV)

104 ½" x 60" coax seal ..... $ 3.99

## Coaxial Dynamics (COA)

81000-A Wattmeter w/SO-239s ..... $260.99
83000-A Peak reading wattmeter w/SO-239s 393.99
82004 50w 2-30MHz element ..... 87.99
82005 100w 2-30MHz element ..... 87.99
82006 250w 2-30MHz element ..... 87.99
82007 500w 2-30MHz element ..... 87.99
82008 1000w 2-30MHz element ..... 87.99
82009 2500w 2-30MHz element ..... 125.99
82010 5000w 2-30MHz element ..... 125.99
82013 10w 25-60MHz element ..... 71.99
82014 25w 25-60MHz element ..... 71.99
82015 50w 25-60MHz element ..... 71.99
82016 100w 25-60MHz element ..... 71.99
82029 10w 100-250MHz element ..... 71.99
82031 50w 100-250MHz element ..... 71.99
82033 250w 100-250MHz element ..... 71.99
82046 10w 400-1000MHz element ..... 71.99
82048 50w 400-1000MHz element ..... 71.99
82049 100w 400-1000MHz element ..... 71.99
88000 N female quick match connector each 9.99
88800 Carrying case for meter ..... 65.99

## COBRA (COB)

19DX III AM Mobile CB ..... $ 49.99
19LTD II AM Mobile CB ..... 54.99
21LTD ST Sound Tracker AM Mobile CB ..... 74.99
25LTD (25LTD Classic) AM Mobile CB ..... 89.99
25WXNW ST Night Watch Sound Tracker AM Mob CB/WX 109.99
29LTD (29LTD Classic) AM Mobile CB ..... 99.99
29NW Night Watch AM Mobile CB ..... 119.99
29WXNW ST Night Watch Sound Tracker AM Mob CB/WX 129.99
75WX ST Sound Tracker AM Mobile CB w/WX 99.99
HH-37 ST Sound Tracker handheld CB ..... 59.99
HH-Road Trip Sound Tracker HH CB/WX/mag ant 79.99
148NW ST Night Watch Sound Tracker SB/AM Mob CB 179.99
HGA-1000 Magnet mt CB antenna ..... 19.99
HGM-77 Noise canx/amplified mobile mic .... 24.99
PR-3000-2DX 22ch 2w GMRS/FRS HH ....pair 79.99

## COMET (CMT)

### MOBILE ANTENNAS

B-10 2m/440 2.15db 12" cell look-alike ant $ 39.99
B-10NMO 2m/440 2.15db 12" cell look-alike NMO 39.99
C-757 2m/440 2.15/5.5db 38" foldover ant . 54.99
C-757NMO 2m/440 2.15/5.5db 38" foldover NMO 54.99
C-767 2m/440 3.5/6db 40" foldover ant ..... 59.99
C-767NMO 2m/440 3.5/6db 40" foldover NMO 59.99
CA-2X4SR 2m/440 3.8/6.2db 40" mob ant ... 64.99
HA-050 6m 33" ¼ wave mobile antenna ..... 72.99
HP-32 2m/440 3/5.5db 34" 350/250w ant ... 89.99
M-24B 2m/440 1.7/4.1db mag mt ant w/BNC 39.99
M-24M 2m/440 1.7/4.1db mag ant w/PL259 39.99
SBB-1 2m/440 1.5/2.15db 16" flex mobile ... 39.99

## Comet - continued AES Price

SBB-1NMO 2m/440 1.5/2.15db 16" flex NMO 39.99
SBB-2 2m/440 2.15/3.8db 18" black mobile 39.99
SBB-2NMO 2m/440 2.15/3.8db 18" blk NMO 39.99
SBB-5 2m/440 3/5.5db 38" black mobile ant 54.99
SBB-5NMO 2m/440 3/5.5db 38" black NMO .. 54.99
SBB-7 2m/440 4.5/7.2db 4' 7" black mob ant 74.99
SBB-7NMO 2m/440 4.5/7.2db 4' 7" blk NMO. 74.99
SB-14 6m/2m/440 43" chrome mobile ant ... 64.99
SB-15 6m/2m/440 2.15/4.5/7.2db 5' chr mob 79.99
SBB-25 2m 4.1db black mobile antenna ..... 44.99
SBB-25NMO 2m 4.1db black NMO mob ant .. 44.99
SB-97 2m/440/1.2 3/6.8/9.6db 39" type N ... 79.99
SB-123 1.2GHz 7.2db 24" type N mobile ant 49.99
SBB-224 2m/220/440 2.15/3.2/5.5 blk mob .. 74.99
SBB-224NMO 2m/220/440 2.15/3.2/5.5 blk NMO . 74.99
SF-245 2.4 GHz 7db 18" fg type N ant ..... 69.99
UHV-4 10/6/2/440 54" mobile ant; FT8900R 109.99
UHV-6 40/15/10/6/2m/440 7' 2" mobile ant . 149.99
L-3.5 80m loading coil for UHV-6 ..... 34.99
L-14 20m loading coil for UHV-6/CA-HV .... 29.99
L-18 17m loading coil for UHV-6/CA-HV .... 29.99

### MOBILE MOUNTS

3D4M Mobile mt, 13' coax w/UHF connectors $ 24.99
3D4N Mobile mt, 13' coax w/type N ..... 28.99
3D5M Mobile mt, 16.5' coax w/UHF connectors 27.99
5D4N Roof mount, 13' coax w/type N ..... 31.99
AD-10N NMO mount to female N adapter ..... 17.99
AD-15M NMO mount to SO-239 adapter ..... 17.99
AD-25M SO-239 to NMO mount adapter ..... 14.99
AD-35 ⅜-24 stud to UHF mobile mt adapter . 19.99
CK-3M Dlx 2-step 10' cable w/UHF connectors 33.99
CK-3M5 Dlx 2-step 16.5' cable w/UHF connects 39.99
CK-5N Dlx 13' cable assembly w/type N ..... 47.99
CM-5M Hvy duty mag mt, coax, max 4' ant .. 24.99
CP-5-3/8-24 HD ⅜-24 mt (RS-730) w/16.5' coax 66.99
CP-5M Hvy duty UHF mt (RS-730) w/16.75' coax 66.99
CP-5NMO Hvy duty NMO mt (RS-730) w/16.5' coax 66.99
CQ-5M Dlx black QD trunk lip mt/17' coax .D 66.99
CQ-5N Dlx black QD tnk lip mt/17' coax/N ..D 49.99
CR-5M Std coax assy, 16.5' coax, UHF conn . 19.99
CT-5M Trunk lip mount w/16.5' coax ..... 39.99
GR-5M Dlx tnk lip mt w/ coax; matches SB ... 67.99
RS-9 Trunk lip mount, no coax ..... 11.99
RS-520 Mini heavy duty trunk/hatch mount . 28.99
RS-560C Luggage rack mount, no coax ..... 35.99
RS-720 Hatch/rear door/tnk multi-adj mt ..... 28.99
RS-720NMO Hch/rear door/tnk multi-adj NMO mt 28.99
RS-730 HD rear van/SUV door/tnk lip mt, no coax 29.99
WS-1M Window clip mt w/UHF connectors .... 59.99

### BASE STATION ANTENNAS

CA-712EF 440 9db 10' 5" base antenna ..... $109.99
CA-ABC22A 2m 6,5db 9' 5" base/rptr ant .... 69.99
CA-ABC23 2m 7.8 db 13' 4" base/rptr ant ... 99.99
CA-F72GF 440-470 6db 3' 6" tunable ant .... 109.99
CA-52HB4 6m 4 el 10.4db 10' 6" boom beam 119.99
CX-333 2m/220/440 6.5/7.8/9db 10.25' ant 179.99
CYA-1216E 1.2GHz 16el 16.6db 4' 5" bm N beam 129.99
CYA-2412 2.4GHz 12el 15.5db 2' 6" bm N beam D 129.99
DS-15 6m/2m/440/900/1.2 discone ant .....D 69.99
DS-150S 6m/2m/440/900/1.2 discone/60' coax 99.99
GH-50 6m 2.15db 7' 10" fg base antenna .... 99.99
GP-3 2m/440 4.5/7.2db 5' 11" base/rptr ant 99.99
GP-6 2m/440 6.5/9db 10' 2" base/rptr ant .. 149.99
GP-9 2m/440 8.5/11.9db 17' 8" base/rptr .... 179.99
GP-9N 2m/440 8.5/11.9db 17' 8" N base/rptr 179.99
GP-15 6/2m/440 3/6.2/8.6db 7' 11" base ..... 154.99
GP-21/CA-1221S 1.2 14.8db 8' N base/rptr .. 149.99
GP-24 2.4GHz 12.4db 5' 11" N base/rptr ..... 179.99
GP-24S 2.4GHz 9.9db 3' 7" N base/rptr .....Δ 99.99
GP-98 2m/440/1.2 6.5/9/13.5db 9' 8" N ant . 189.99
KP-20 900 MHz 9.2db 7' 4" type N base/rptr 112.99

## Comet - continued AES Price

**PYA-913** 900MHz 13el 15.8db 4' 8" type N beam 139.99

### DUPLEXERS AND TRIPLEXERS

**CF-142** 1.3-150/200-480 600/400w UHF/leads $ 69.99
**CF-360A** 1.3-30/50-470 600w UHF w/leads . 69.99
**CF-360B** 1.3-30/50-470 600w UHF/common lead 69.99
**CF-416A** 2m/440 800/500w UHF w/leads ..... 46.99
**CF-416B** 2m/440 800/500w UHF/N w/leads . 46.99
**CF-416C** 2m/440 800/500w N/UHF/N leads . 49.99
**CF-416W** 1.3-250/400-1400 400/200w N/leads ... 69.99
**CF-530** 1.3-90/125-470 600w UHF w/leads . 69.99
**CF-530C** Backwards duplexer for FT-8900R . 69.99
**CF-706A** 1.3-56/75-470 350w UHF w/leads . 69.99
**CF-416OI** 2m/440 800/500w UHF/UHF/N, no leads 45.99
**CF-416OJ** 2m/440 800/500w SO239, no leads . 53.99
**CF-416OK** 2m/440 800/500w all UHF, no leads 45.99
**CFX-324A** 2m/220/440 600w UHF w/leads ... 88.99
**CFX-324B** 2m/220/440 600w UHF, no leads . 85.99
**CFX-514** HF/2m/440 800/800/500w UHF w/leads 79.99
**CFX-514J** HF/2m/440 800/800/500w UHF, no leads 74.99
**CFX-514N** HF/2m/440 800/800/500w UHF/N w/leads 79.99
**CFX-4310C** 1.3-150/440/1.2 triplexer, no leads 79.99
**CFX-5140** HF/6m/2m/440 800/800/500w UHF, no leads 74.99

### HT & HANDHELD SCANNER ANTENNAS

**BNC-24** 2m/440 17" 2.15/5.3db BNC whip ... $ 22.99
**CH-32** 2m/440 1.75" BNC Miracle Baby ant . 29.99
**CH-75** 2m/440 0/3.2db 14.75" BNC ant ..... 25.99
**CHF-412** 40/15/2m 28" BNC duck; FT-817 .D 49.99
**HM-05** 18" BNC male - SO-239 adapter/cable 9.99
**HS-05** 18" SMA male - SO-239 adapter/cable 9.99
**HT-224** 2m/220/440 11" SMA antenna ..... 47.99
**SH-55** 2m/440 1.5/3.2db 15" BNC ant ..... 33.99
**SH-95** 2m/440/1.2 1.5/2.15/5.5db BNC ant . 34.99
**SMA-3** 2m/440 1.2/1.7db 9.75" SMA ant ..... 39.99
**SMA-24** 2m/440 17" 2.15/5.3db SMA whip ... 22.99
**SMA-501** 2m/440/900 1.5" SMA antenna ..... 29.99
**SMA-503** 2m/440 8.75" SMA antenna ..... 29.99
**SMA-703** 2m/440/1.2GHz 6.5" SMA ant ..... 31.99

## Comm Outfitters (COF)

**EXP-1** Expedition Pack for Yaesu FT-817 ..... $ 99.99

## COMM-SPEC (COM)

**ID-8** Automatic morse station identifier ..... $ 69.99
**SS-64** 64-tone mini prog CTCSS encoder ..... 28.99
**TE-32** 32-tone CTCSS prog encoder box ..... 49.99
**TS-64DS** 64-tone CTCSS prog encoder/decoder 57.99

## CONNECTORS

### AMPHENOL COAX CONNECTORS (AMP)

**83-1SP-1050** Male coax plug (PL-259) ..... $ 1.99
**83-1SP** Silver plated coax plug (PL-259) ..... 2.99
Van Gorden (**VAN**) **silver plated** teflon PL-259 2.99
**83-185** Reducer for RG-58 (UG-175) ..... .99
**83-168** Reducer; RG-59/RG-8X (UG-176) .. .99
**83-1AP** Right angle adaptor (UG-646) ..... 8.99
**83-1J** Double female adaptor (PL-258) ..... 6.99
**83-1R** Female chassis mt socket (SO-239) ... 3.99
**83-1H** Hood; in-line use w/83-1R (UG-106) Δ 1.99
**83-1T** T-connector adaptor (M-358) ..... 11.99
**83-877** Double male adaptor ..... 12.99
**83-878** Single hole ⅝" chassis socket ..... 2.99
**31-002** BNC male connector for RG-58 ..... 4.99
**31-012** BNC male connector; RG-59/RG-8X .. 7.99
**31-221** BNC female chassis socket ..... 2.99
**82-24** Type N female chassis mt socket ..... 7.99
**82-61** Type N male connector for RG-8 ..... 8.99
**82-64** Type N right angle adaptor .....† 12.99
(VAN) **N connector** Type N connector for 9913 4.99
**82-202-1006** Type N male; 8214/9913/9913F . 7.99
**82-209** Type N female in-line for RG-8 ..... 9.99
**34025** Type N male connector for RG-58 ..... 8.99

## Connectors - continued AES Price

### AMPHENOL COAX ADAPTORS (AMP)

**2900** SO-239 to BNC male adaptor ..... $ 14.99
**4400** SO-239 to type N male adaptor ..... 14.99
**31-28** BNC female to PL-259 adaptor ..... 16.99
(HOU) **SMA-872** SO-239 to SMA plug adaptor 5.99

### AIM CONNECTORS, PLUGS & ADAPTORS (AIM)

**19-1289** 8-pin female mic plug .....D $ 4.99
(PHI) **61-608B** 8-pin female mic plug ..... 4.99
**25-7351** Chassis mt SO-239 double female . 3.99
**25-7365** BNC female to SO-239 ..... 3.99
**25-7420** BNC male to SO-239 ..... 2.99
**26-8010** Type N double female ..... 3.99
**26-8011** Type N chassis mount ..... 2.99
**26-8015** N male to SO-239 ..... 4.99
**26-8016** BNC female to N male ..... 4.99
**26-8017** BNC male to N female ..... 4.99
**26-8027** N male for RG-8X .....D 4.99
**27-8120** BNC female to PL-259 ..... 2.99
**27-8130** BNC double male ..... 3.99
**27-8140** BNC T; 2 female, 1 male ..... 2.99
**27-8142** BNC T, 3 male .....Δ .49
**27-8450** BNC chassis mt, 4 screw holes ...Δ 1.99
**27-8460** ⅜" hole BNC chassis mt .....Δ .49
**27-8470** Dual BNC chassis mount ..... 3.99
**29-3855** BNC female to SMA male ..... 3.99
**29-4140** SO-239 to mini PL-259 ..... 2.99

### VANCO MICROPHONE CONNECTORS (VCO)

**CBC-2P** Panel mt 2-pin male .....Δ $ .09
**CBC-3** 3-pin female mic plug .....Δ .49
**CBC-3P** Panel mt 3-pin male .....Δ .09
**CBC-4** 4-pin female mic plug ..... 4.99
**CBC-4P** Panel mt 4-pin male .....Δ .49
**CBC-5** 5-pin female mic plug ..... 3.99
**CBC-5P** Panel mt 5-pin male .....Δ .09
**CBC-6** 6-pin female mic plug ..... 4.99
**CBC-6P** Panel mt 6-pin male .....Δ .09
(AIM) **19-1289** 8-pin female mic plug ..... 4.99
**CBC-8P** Panel mt 8-pin male ..... 5.99
**P-5D** 5-pin DIN plug .....Δ .09

### KENWOOD DIN PLUGS (KEN)

**7-pin DIN** plug ..... $ 4.99
**8-pin DIN** plug ..... 6.99
**13-pin DIN** plug ..... 9.99

### VANCO Mic Holders/Mini Plugs/Cig Plugs (VCO)

**MH-1** Magnetic mic holder ..... $ 1.69
**MH-2** Regular mic holder ..... 1.49
**P-25** 2.5mm sub-miniature phone plug .....Δ .05
**P-35** 3.5mm miniature phone plug ..... .69
(DAL) **15-0293** 3.5mm mono phone plug ..... .19
(HOU) **AP-115** ¼" metal stereo plug ..... 1.99
(HOU) **AP-135** 3.5mm stereo mini phone plug .69
**P-12R** 2-contact cigarette plug ..... 1.99
**P-12V** Cig lighter plug w/leads ..... 1.99
**P-212** 2-outlet cigarette plug adapter ..... 4.99
**P-212B** Dual cigarette lighter socket adapter 8.99

## Connect Systems (CSY)

**CS-800** Full duplex patch & repeater controller $369.99
**CS-900** Simplex interconnect ..... 369.99

## CROSS DEVICE (CRS)

**STUF** Coax connector waterproofing filler ..... $ 4.99

## CUSHCRAFT (CUS)

**At Cushcraft's request, amateur radio dealers are not authorized warranty depots for Cushcraft Antennas. All warranty issues should be directed to the Technical Support Department/Warranty at Cushcraft (603) 627-7877.**

### VHF/UHF FM BEAMS* (Vertical polarization)

**A148-3S** 2m, 3 el wideband beam, 7.8db .... $ 69.99
**A148-10S** 2m, 10 el wideband beam, 13.2db 109.99

## Cushcraft - continued AES Price

**A449-6S** 440 MHz, 6 el, 3' boom, 10 db ..... 66.99
**A449-11S** 440 MHz, 11 el, 4.5' boom, 13 db . 89.99
*Antennas can be mounted vertically or horizontally!

### 2M/440 FM BEAMS* (Vertical polarization)

**A270-6S** 2m/440, 3/3 el, 2.8' boom, 7.8 db .. $ 89.99
**A270-10S** 2m/440, 5/5 el, 6.17' boom, 10 db 109.99
*Antennas can be mounted vertically or horizontally!

### TRI-BAND 6M/2M/440 BEAMS

**A6270-13S** 6m/2m/440, 3/5/5el, 8.66'bm, 8/10/10db $199.99
**ASL-670** 50-450MHz 14el 6.7' boom 6db LP . 269.99

### FM RINGOS - 1/2 Wave Verticals

**AR-10** 10m FM Ringo, 17.6', 3db, 1000w ..... $ 89.99
**AR-6** 6m FM Ringo, 10.1', 3db, 1000w ..... 89.99
**AR-2** 2m FM Ringo, 3.9', 3db, 1000w ..... 54.99
**AR-450** 440MHz FM Ringo, 1.4', 3db, 500w .. 40.99

### RINGO RANGERS - FM Verticals

**ARX-2** 2m FM Ringo Ranger ..... $ 64.99
**ARX-2B** 2m FM Ringo Ranger II, 14', 7db, 1000w 74.99
**ARX-220B** 220 FM Ringo Ranger II, 9.3', 7db, 500w 74.99
**ARX-450B** 440FM Ringo Ranger II, 4.9', 7db, 500w 74.99

### DUAL-BAND 2M/440 FM RINGOS

**AR-270** 2m/440MHz FM, 3.75', 3/5.5db, 250w $104.99
**AR-270B** 2m/440 MHz FM, 7.7', 5.5/7.5db, 250w 109.99

### TWIST, OSCAR BEAMS (Horiz/Vert Polarization)

**A148-20T** 2m 20el 10.8'bm 11.1db twist ..... $154.99
**719B** 432 19 el 13.5' boom 15.5db ..... 169.99

### BOOMER ANTENNAS

**124WB** 2m Boomer, 4 el, 4' boom, 10.2 db ... $ 99.99
**13B2** 2m Boomer, 13 el, 15' boom, 15.8 db .. 169.99
**17B2** 2m Boomer, 17 el, 31' boom, 18 db ..... 269.99
**26B2** 2 13B2s vertically stacked ..... 449.99
**224WB** 220 Boomer, 4 el, 3' boom, 10.2db ... 79.99

### BOOMER POWER DIVIDERS

**PD-2** Power divider for 2 13B2s ..... $ 71.99
**PD-4** Power divider for 4 13B2s ..... 84.99

### VHF/UHF BEAMS* (Horizontal polarization)

**A50-3S** 6m, 3 el, 6' boom, 8 db, stainless hdwre $124.99
**A50-5S** 6m, 5 el, 12' boom, 10 db, stainless hdwre 189.99
**A50-6S** 6m, 6 el, 20' boom, 11db, stainless hdwre 299.99
**A148-10S** 2m, 10 el wideband beam ..... 109.99
**A430-11S** 430 MHz, 11 el, 4' boom, 13 db .... 89.99
*Antennas can be mounted vertically or horizontally!

### MOBILE ANTENNAS

**CS-28M** 10m magnet mt antenna ..... $ 59.99
**CS-50M** 6m magnet mt 3 db antenna ..... 59.99
**CS-147A** 2m coil & whip only ..... 39.99
**CS-147M** 2m magnet mt 3 db antenna ..... 59.99
**CS-220M** 220 magnet mt 3 db antenna ..... 59.99
**CS-450M** 440 magnet mt 5 db antenna ..... 59.99

### DUAL-BAND 2M/440 MOBILE ANTENNAS

**CS-270A** 2m/440 coil & whip only ..... $ 59.99
**CS-270M** 2m/440 3.7/6 db magnet mt ant .. 84.99

### MOUNTS ONLY FOR MOBILE ANTENNAS

**CS-MG** Magnetic mount ..... $ 29.99
**CS-MGN** Magnetic mount w/N connector ..... 34.99
**CS-TL** Trunk lip mount ..... 29.99

### MULTIBAND HF VERTICAL ANTENNAS

**MA-5V** 20/17/15/12/10m 14.7' vertical ant .. $219.99
**MA-6V** 20/17/15/12/10/6m 14.7' vertical ant 259.99
**R-6000** 20/17/15/12/10/6m 19' vertical ..... 329.99
**R-8** 40/30/20/17/15/12/10/6m 28.5' vert ..... 489.99
**R-8GK** Guy kit for R-8 ..... 49.99

### ROTATABLE HF DIPOLES

**D-3** 20/15/10m World Ranger dipole ..... $259.99
**D-3W** 30/17/12m rotatable dipole ..... 259.99
**D-4** 40/20/15/10m World Ranger dipole ..... 369.99
**D-40** 40m World Ranger dipole ..... 319.99


Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

## Cushcraft - continued

AES Price

### BIG THUNDER HF TRI-BAND BEAM

**X-7** 20/15/10m, 7 el, 18' boom, 12.5/13db .. $669.99
**X-740** 40m add-on kit for X-7 ..... 299.99

### BIG THUNDER HF MONOBAND BEAM

**XM-240** 40m, 2 el, 23' boom, 7 db ..... $719.99
**TEN-3** 10m, 3 el, 8' boom, 8 db ..... 199.99

### MULTIBAND HF BEAM ANTENNAS

**A-3S** 20/15/10m, 3el, 14'bm, 8db, stainless hdwr $449.99
**A-743** 40m or 10 MHz add-on kit; A-3/A-3S 179.99
**A-4S** 20/15/10m, 4el, 18'bm, 8.9db, stainless hdwre 549.99
**A-744** 40m or 10 MHz add-on kit; A-4/A-4S 179.99
**A-3WS** 17 & 12m, 3 el, 14' boom, 8 db ..... 369.99
**A-103** 30m add-on kit for A-3WS ..... 179.99
**ASL-2010** 13.5-32MHz 8el 18' bm 6.4db LP . 749.99
**MA-5B** 20/17/15/12/10m 7.3' boom mini beam 349.99

### LIGHTNING ARRESTORS

**LAC-4** 200w SO-239 gas tube arrestor ..... $ 49.99
**LAC-4H** 2kw SO-239 gas tube arrestor ..... 54.99
**LAC-4N** 200w type N gas tube arrestor ..... 59.99
**LAC-4NH** 2kw type N gas tube arrestor ..... 64.99
**LC-2** Extra 200w cartridge for LAC-4/4N ... 15.99
**LC-2KW** Extra 2kw cartridge for LAC-4H/4NH 17.99
**5VB** Vinyl connector boots .....pack of 5 15.99

## Cutting Edge (CUT)

### POWER PORT

**HI-D1** Radio glove; Ali DJC5T/DJX2T/Yae VX1R $ 19.99
**HI-5X** Radio glove; Ico IC-Q7/R-2/Yae FT-11 . 19.99
**HI-51** Radio glove; Yaesu VX-5R ..... 19.99
**HI-6** Radio glove; ADI PR52/Ali S11/V5/Ico T81/Yae FT50 19.99
**HM-817** WorldPouch; Yaesu FT-817 ..... 73.99
**HMP-II** WorldPack II backpack; mini HF Xcvr 67.99
**HP-8AF** 8AH gel-cell w/2.5 hr fast cgr ..... 119.99
**HPP-8A** 8AH gel-cell w/overnight cgr ..... 73.99
**PPMMDC** Multi-tip/volt reg DC-DC adapt ....Δ 6.99
**PPSCA** Solar cell cigarette adapter ..... 10.99

## DCI (DCI)

**145-2H** 2m 144-146MHz 200w bandpass filter $ 99.99
**146-4H** 2m 144-148MHz 200w bandpass filter 99.99
**223.5-3H** 222-225MHz 200w bandpass filter 109.99
2m/220 models w/N connectors add $10 special order
**435-10C** 430-440MHz 200w N bandpass filt 119.99
**445-10C** 440-450MHz 200w N bandpass filt 119.99
**146/444-DB** 144-148/438-450 200w bp filter 169.99

## DC SALES (DCS)

**Tenna Hitch** ¾-24 trailer hitch antenna mt .. $ 38.99

## DAIWA (DAI)

**CN-101** 1.8-150 15/150/1.5kw SWR/pwr meter/light $ 99.99
**CN-103M** 140-525 20/200w SWR/power meter 99.99
**CN-801H** 1.8-200 20/200/2kw SWR/pwr meter 149.99
**CN-801V** 140-525 20/200w SWR/power meter . 154.99
**CS-201** 2-position 600 MHz coax switch ..... 26.99

## DAVIS (DAV)

**6150** Wireless Vantage Pro weather station .. $539.99
**7400** Perception II indoor WX unit ..... 139.99
**7425** Wizard III weather station ..... 179.99
**7440** Monitor II weather station ..... 269.99
**7852** Rain Collector II, 0.01" ..... 69.99
**7977** Electronic rain counter, 0.01" .....D 4.99
**7859** External temp/humd Sensor II; 7440 119.99
**7862** Weatherlink Win interface/software ... 149.99
**7866** Weatherlink Mac interface/software .. 139.99
**7870** Modem adapter for 7862/7866 ...Δ 1.99
**7867** Weatherlink Mac to Win conv kit ....Δ 1.99
**7868** Weatherlink Win to Mac conv kit ....Δ 1.99
**7873** Cig lighter power cord ..... 10.99
**7876-040** 4-conductor 40' extension cable 18.99
**7878-040** 6-conductor 40' extension cable 22.99

## Davis - continued

AES Price

**7880** 8-conductor 25' junction box cable Δ 4.99
**7881** 8-conductor 50' junction box cable .. 25.99
**7882** 8-conductor 100' junction box cable 45.99
**7890** Mast mount for anemometer ..... 14.99
**0131** Weather forecasting quick reference card 9.99
**0271** Turbo Meter handheld dig wind indicator 139.99
**0281** Wind Wizard handheld wind indicator .. 47.99

## DIAMOND (DIA)

### SWR/POWER METERS

**SX-20C** HF/6m/2m 30/300w meter ..... $ 89.99
**SX-40C** 144-470 (220 w/correction) 15/150w 79.99
**SX-100** 1.6-60 MHz 30/300/3kw PEP meter .. 134.99
**SX-200** 1.8-200 MHz 5/20/200w PEP meter .. 94.99
**SX-400** 140-525 MHz 5/20/200w PEP meter . 114.99
**SX-600** Dual band 1.8-160 /140-525 200w PEP mtr . 169.99
**SX-1000** 1.8-160/430-1300MHz 200w PEP meter . 214.99

### HT & HANDHELD SCANNER ANTENNAS

**RH-3** 2m/440 1.75" BNC mini HT duck ..... $ 24.99
**RH-77CA** 2m/440 15" BNC rubber gain ant .. 24.99
**RH-205** 2m ⅝ wave telescopic HT antenna ... 24.99
**RH-519** 2m/440 8.3" flexible BNC whip ..... 27.99
**RH-707** 2m/440 8¾" tiltable BNC whip ..... 33.99
**RH-951S** 2m/440/1.2GHz 15" BNC slim duck 44.99
**SRH-77CA** 2m/440 15" SMA rubber gain ant 29.99
**SRH-320A** 2m/220/440 flexible SMA whip .... 49.99
**SRH-519** 2m/440 8.3" flexible SMA whip ..... 32.99
**SRH-805** 2m/440/1.2GHz 1.75" SMA ant ..... 27.99
**SRH-815** 2m/440/1.2GHz 6" flex SMA whip .. 36.99
**SRH-999** 6m/2m/440/1.2GHz 20" SMA whip . 59.99

### MONO-BAND MOBILE ANTENNAS

**HF-6FX** 6m 2.15db 44" mobile antenna ..... $ 69.99
**HF-50CX** 6m 3.5db 71" mobile antenna ..... 99.99
**M-285** 2m 3.4db 52.4" mobile antenna ..... 31.99
**M-685** 6m 2.15db 52.4" mobile antenna ..... 31.99
**MG-200** 2.4GHz 7db 23.6" N mobile ant ..... 99.99
**NR-2C** 2m 4.1db 55.5" mobile antenna ..... 39.99
**NR-22L** 2m 6.5db 96.8" mobile antenna ..... 69.99
**NR-124** 1.2GHz 8.4db 25" N mobile antenna 64.99
**SG-2000HD** 2m 5.2db 62.6" 250w mob ant .. 89.99

### DUAL-BAND MOBILE ANTENNAS

**MR-77** 2m/440 2.15/3.4db 20" magnetic ant $ 39.99
**MR-77SMA** 2m/440 2.15/3.4db 20" mag w/SMA 44.99
**NR-72BNMO** Black 2m/440 2.15db 14" NMO 41.99
**NR-73BNMO** Blk 2m/440 2.15/5.5db 34" NMO 57.99
**NR-770HA** 2m/440 3/5.5db 40" mobile ant .. 56.99
**NR-770HB** Black 2m/440 3/5.5db 40" mobile 59.99
**NR-770HNMO** 2m/440 3/5.5db 40" NMO mobile 56.99
**NR-770HBNMO** Blk 2m/440 3/5.5db 40" NMO 59.99
**NR-770RA** 2m/440 3/5.5db 39" mobile ant .. 51.99
**NR-7900A** 2m/440 3.7/6.4db 57" hi pwr mob ant 89.99
**SG-M510** 2m/440 2.15/5.5db 37" mob ant ... 59.99
**SG-7000A** 2m/440 2.15/3.8db 19" mobile .... 69.99
**SG-7500A** 2m/440 3.5/6db 41" mobile ant ... 79.99
**SG-7500NMO** 2m/440 3.5/6db 41" NMO ant .. 79.99
**SG-7900A** 2m/440 5/7.6db 62" mobile ant ... 114.99
**SG-7900ANMO** 2m/440 5/7.6db 60" NMO ant 114.99
**K-400CNMO** Hacth/tnk mt/coax; SG7900ANMO 69.99

### TRI-BAND MOBILE ANTENNAS

**CR-320A** 2m/220/440 2.15/3.8/5.5db 36" .... $ 89.99
**CR-627B** 6m/2m/440 2.15/4.5/7.2db 60" ant 99.99
**CR-627BNMO** 6m/2m/440 2.15/4.5/7.2db 60" 99.99
**HV-7A** 10/6/2m/440 54" UHF mount mobile ant 109.99
**HVC-7** 40m loading coil for HV-7A/MV-3A . 44.99
**HVC-14** 20m loading coil for HV-7A/MV-3A 37.99
**HVC-18** 17m loading coil for HV-7A/MV-3A 37.99
**HVC-21** 15m loading coil for HV-7A/MV-3A 37.99
**NR-2000NA** 2m/440/1.2 3.15/6.3/9.7db 39" N mob 89.99
**SG-M911** 6m/2m/440 2.15/3/5.8db 41" mob 69.99

### QUAD-BAND MOBILE ANTENNA

**CR-8900A** 10m/6m/2m/440 0/0/2.15/5.5db 50" $ 99.99

## Diamond - continued

AES Price

### MAGNET MOUNTS

**DPK-4NM-N** Hvy dty mag mt, cbl, N, 45" max $ 45.99
**K-702M** Hvy duty mag mt, 6¾" dia, 50" max 49.99
**SPM-35** Hvy duty mag mt, cable, 45" max .... 39.99
**SPM-NMO** Hvy dty NMO mag mt, cbl, 45" max 44.99

### TRUNK LIP MOUNTING KITS

**K-200KM** Folding hch/tnk mt/coax; NR/SG ..D $ 39.99
**K-400** Hatch/trunk mt; NR/SG antennas ..... 39.99
**K-400C** Hatch/trunk mt w/coax; UHF mount . 69.99
**K-400CNMO** Hatch/trunk mt w/coax; NMO mt 69.99
**K-400S** Hatch/trunk mt w/coax; UHF mt/SMA 79.99
**K-400SNMO** Hatch/trunk mt w/coax; NMO/SMA 79.99
**K-400-3/8C** Trunk mount w/6.5' cable; ⅜-24 69.99
**K-412C** Light duty hatch/tnk mt w/coax; UHF mt 59.99
**K-412CNMO** Light duty hatch/tnk mt w/coax; NMO 59.99
**K-412S** Light duty hatch/tnk mt w/coax; UHF/SMA 69.99
**K-412SNMO** Lt duty hatch/tnk mt/coax; NMO/SMA 69.99
**C-110** 10' extension cable for K-412 mts .. 14.99
**K-600M** Tilt angle SO-239 trunk mt w/cable . 57.99
**K-600S** Tilt angle SO-239 tnk mt w/cable/SMA 57.99
**K-601M** SO-239 hideaway trunk mt, 6' coax . 69.99
**K-601NMO** NMO hideaway trunk mt, 6' coax . 69.99
**C-110** 10' extension cable for K-601 mts .. 14.99
**K-604M** Tilt angle trunk mt w/flexible cable . 57.99
**K-9000LRM** Motorized luggage rack mount .. 109.99
**K-9000TM** Motorized trunk/hatchback mt ..... 109.99

### MIRROR & LUGGAGE RACK MOUNTS & KITS

**K-515S** Lug rack SO-239 mt; new type SUV/SMA $ 69.99
**K-515SNMO** Lug rack NMO mt; new type SUV/SMA 69.99
**K-540** Mirror/luggage rack mt; under 45" ..... 35.99
**K-540KM** Mirror/luggage rack mt w/coax ..... 59.99
**K-550*** Luggage mt; new mini vans (use GLP) 44.99
**K-550KM*** Luggage mt w/SO-239 base/coax 69.99
*K-550 series not recommended for Yaesu ATAS-100

### MOUNTING GROUP HARDWARE

**C-101** SO-239 mt, 6.5' RG-316 low-loss coax $ 32.99
**C-101NMO** NMO mt, 6.5' RG-316 low-loss coax 32.99
**C-104SMA** 4' RG-58 ext cbl; SMA male & SO-239 16.99
**C-105SMA** 5' RG-58 ext cable; C-101/SMA male 16.99
**C-110** 10' ext cable; C-101/K-601/K-400-3/8C 14.99
**C-110BNC** 10' extension cable to BNC male . 22.99
**C-110SMA** 10' RG-58 ext cable; C-101/SMA male 22.99
**C-211** SO-239 mt, 6.5' coax, 10' coax entend 44.99
**C-213** SO-239 mt, 13.5' RG-316 low-loss coax 41.99
**C-213NMO** NMO mt, 13.5' RG-316 low-loss coax 41.99
**GLP-5N** UHF mtg grp hrdwr; mini coax, Yae N D 1.99
**NMO/UHF** NMO to UHF adapter ..... 12.99
**NMO/UHF-B** Black NMO to UHF adapter ..... 13.99

### MULTIBAND HF BASE VERTICAL ANTENNA

**CP-6A** 75/40/20/15/10/6m 200w PEP 16' vert $299.99

### MONO-BAND BASE STATION ANTENNAS

**A-144S5** 2m 5 el 37.5" boom 9db beam..... $ 59.99
**A-430S10** 430 10 el 43" boom 13db beam .... 69.99
**A-430S15** 430 15 el 89" boom 14.8db beam . 79.99
**A-502HB** 6m 2 el 2.6' boom 6.3db beam..... 99.99
**A-504HB** 6m 4 el 10.7' boom 10.8db beam ... 139.99
**CP-22E** 2m 6.5db 9' base antenna ..... 54.99
**DP-GH62** 6m 6db 21' base antenna ..... 139.99
**F-22A** 2m 6.7db 10.5' base antenna ..... 99.99
**F-23A** 2m 7.8db 15' base antenna ..... 119.99
**F-23C1** 148-154MHz 7.8db 15' comm base . 169.99
**F-718A** 440 11.5db 15' type N base antenna 209.99
**F-718L** 420-430 11.5db ATV N base ant ... D 169.99
**G-200** 2.4GHz 11db 6' N base antenna ..... 199.99
**2400-Y12** 2.4GHz 12db 8el 15"bm 25w N beam 119.99

### DUAL-BAND BASE STATION ANTENNAS

**U-200** 440/1.2GHz 8.3/11.7db 6' N base ant $129.99
**X-50A** 2m/440 4.5/7.2db 5.6' base antenna . 99.99
**X-50NA** 2m/440 4.5/7.2db 5.6' base N ant ... 99.99
**X-200A** 2m/440 6/8db 8.3' base antenna ..... 139.99

## Diamond - continued

| | AES Price |
|---|---|
| **X-500HNA** Hvy duty 2m/440 8.3/11.7db 17.8' N ant | 239.99 |
| **X-510MA** 2m/440 8.3/11.7db 17.2' base ant | 184.99 |
| **X-510NA** 2m/440 8.3/11.7db 17.2' type N ant | 184.99 |
| **X-700HA** 2m/440 9.3/13db 24' type base ant | 399.99 |
| **X-700HNA** 2m/440 9.3/13db 24' type N ant . | 399.99 |
| **TRI-BAND BASE STATION ANTENNAS** | |
| **D-130J** 25-1300 MHz 200w discone ant ..... | $ 89.99 |
| **V-2000A** 52-54MHz/2m/440 2.1/6.2/8.4db 8.3' | 162.99 |
| **X-3200A** 2m/220/440 6/7.8/8db 10' base .... | 209.99 |
| **X-6000A** 2m/440/1.2 6.5/9/10db 10.5' N ..... | 189.99 |
| **DUPLEXERS & TRIPLEXERS** | |
| **MX-62M** HF-6m &2m/440, 12" cables dplxr . | $ 74.99 |
| **MX-72D** HF-2m/440 400/150/100w duplexer | 43.99 |
| **MX-72H** HF-2m/440 duplexer w/12" cables .. | 46.99 |
| **MX-72N** HF-2m/440 dplxr, 440 type N, 12" cables | 49.99 |
| **MX-214D** 2m/220 150/100w dplxr, no cables | 69.99 |
| **MX-324** 2m/220/440 triplexer ..... | 99.99 |
| **MX-324D** 2m/220/440 triplexer, no cables .... | 99.99 |
| **MX-610** HF-6m duplexer; IC-706/FT-100 ..... | 69.99 |
| **MX-2000** HF-6m/2m/440 400/400/250w triplexer | 84.99 |
| **MX-3000** HF-2m/440/1.2 400/200/100w triplexer | 79.99 |
| **MX-3000N** HF-2m/440/1.2 400/200/100w N triplexer | 85.99 |
| **ACCESSORIES** | |
| **CA-23RS** DC-2500MHz 200w N lightning protect | $ 39.99 |
| **CA-23RW** 2500MHz 200w N waterproof protect | 44.99 |
| **CA-35R/S** DC-500MHz 400w lightning protect | 29.99 |
| **CX-210A** 1.5kw DC-1000MHz coax switch .... | 44.99 |
| **CX-210N** 1.5kw DC-1500MHz N coax switch . | 74.99 |
| **CX-310A** HD 3-pos DC-800MHz coax switch . | 83.99 |
| **DL-30A** 15/100w peak 0-500MHz dummy load | 27.99 |
| **DL-30N** 15/100w peak 0-500MHz N dummy load | 39.99 |
| **GZV-4000** Variable 40A switching ps/meter/spkr | 179.99 |

## DRAKE (DRA)

| | |
|---|---|
| **R-8B** Shortwave receiver ..... | 1499.99 |
| **MS-8** 1592 Speaker ..... | 59.99 |
| **1590** 35-55, 108-174 MHz VHF converter .. | 269.99 |
| **7852** R-8B technical manual ..... | 39.99 |
| **1334** Mobile mount kit for SW-1/SW-2 .....Δ | .99 |
| **1591** Interface computer soft; original R-8 ..D | .99 |

## ECG (ECG)

| | |
|---|---|
| **U-105** Light duty antenna rotor/3-wire ..... | $ 69.99 |
| **TB-105** Thrust bearing ..... | 18.99 |

## EASY-UP (UPS OK) (EAS)

| | |
|---|---|
| **EZ 29-24S** Stainless double strap chimney mt | $ 17.99 |
| **EZ 48-3ABX** 3' boxed tripod w/pitch pad kit . | 24.99 |
| **EZ 48-5ABX** 5' boxed tripod w/pitch pad kit . | 34.99 |
| **EZ-516** 5' 16 ga steel mast .....pick-up only | 7.99 |

## EMERSON (EME)

| | |
|---|---|
| **EVO-6550** 2nd 900MHz camera; EVO-6500 D | $ 29.99 |
| **PDC-803**/PMD-8030 Dig compass/LCD backlite | 29.99 |
| **RP-005** 6-func flashing safety strobe/reflector | 6.99 |

## GE (GEX)

| | |
|---|---|
| **72887** Super Radio III AM/FM radio, AC/DC .. | $ 49.99 |

## GAP VERTICALS (GAP)

| | |
|---|---|
| **DX-VIII** Challenger 75*/40/20/15/12/10/6/2m 31.5' | $299.99 |
| *80m CW w/capacitor exchange from GAP | |
| **Challenger Counterpoise** ..... | 30.99 |
| (SYN) **100'** 3/32" black double braided rope .. | 6.99 |
| **DX-VI** Eagle 40/20/17/15/12/10m 21.5' rigid | 309.99 |
| **DX-IV** Voyager 160/80/40/20m 45'; use 350' guy | 419.99 |
| **Voyager Counterpoise** ..... | 55.99 |
| (SYN) **350'** 3/16" black double braided rope .. | 39.99 |
| **Titan DX** 75*/40/30/20/17/15/12/10m, 25' .. | 339.99 |
| *80m CW w/capacitor exchange from GAP | |
| **100' Guy Kit** with clamp ..... | 14.99 |
| **200' Guy Kit** with clamp ..... | 22.99 |
| **Ground Mount** Quick tilt mt for vertical ant . | 79.99 |

## Gap - continued

| | AES Price |
|---|---|
| **Ladder Mount** Quick tilt mt; campers/RVs .... | 79.99 |
| **Hear It** DSP noise eliminating speaker ..... | 159.99 |
| **In Line Module** Hear It in line module noise elim | 199.99 |

## GARMIN (GAR)

| | |
|---|---|
| **Geko-101** Small GPS receiver ..... | $ 99.99 |
| **Geko-201** Small GPS receiver w/WAAS ..... | 139.99 |
| **GPS-12XL** GPS receiver ..... | 219.99 |
| **GPS-72** Handheld track-plotter GPS ..... | 159.99 |
| **GPS-III Plus** Handheld/dash mt mapping GPS | 299.99 |
| **GA-26C** Low prof rem ant/cbl; GPSIII/III Plus | 89.99 |
| **GA-27C** Low prof rem ant/cbl; GPS-12CX/XL | 89.99 |
| **010-10048-00** Mounting bracket; 12CX/XL . | 29.99 |
| **010-10082-00** Power/data cable ..... | 27.99 |
| **010-10085-00** Cig lighter adapter cable ... | 23.99 |
| **010-10111-00** Mtg bkt; GPS-III Plus ..... | 31.99 |
| **010-10117-01** Carying case .....D | 6.99 |
| **010-10117-02** Carying case ..... | 12.99 |
| **010-10121-00** MCX-BNC adapt cbl; 12CX/XL | 25.99 |
| **010-10141-00** PC interface cable ..... | 38.99 |
| **010-10165-00** PC cable w/cig adapter ..... | 45.99 |
| **010-10215-00** MapSource US CD;GPS-III Plus | 99.99 |
| **StreetPilot** 12 ch dash mt mapping GPS ...D | 399.99 |
| **GA-26C** Low prof remote ant w/cable/BNC | 89.99 |
| **010-10082-00** Power/data cable ..... | 27.99 |
| **010-10085-00** Cig lighter adapter ..... | 23.99 |
| **010-10141-00** PC interface cable ..... | 38.99 |
| **010-10165-00** PC cable w/cig adapter ..... | 45.99 |
| **010-10199-03** Carrying case .....D | 4.99 |
| **010-10215-00** MapSource US road&rec CD | 99.99 |
| **010-10215-03** MapSource MetroGuide CD D | 99.99 |
| **010-10227-00** Blank 8MB memory cartridge | 58.99 |
| **010-10232-00** Carrying case .....D | 6.99 |
| **010-10468-00** MapSource MetroGuide CD | 99.99 |
| **StreetPilot III Deluxe** GPS ..... | 699.99 |
| **GA-26C** Low prof remote ant w/cable/BNC | 89.99 |
| **010-10141-00** PC interface cable ..... | 38.99 |
| **010-10165-00** PC cable w/cig adapter ..... | 45.99 |
| **010-10227-00** Blank 8MB memory cartridge | 58.99 |
| **eMAP Deluxe** GPS/maping/8MB datacard/PC cbl | 209.99 |
| **GA-27C** Low profile remote ant/cable/MCX | 89.99 |
| **010-10121-00** MCX to BNC adapter cable | 25.99 |
| **010-10203-00** Cig lighter cbl; eMAP & eTREX | 39.99 |
| **010-10205-00** Data cable; eMAP & eTREX | 22.99 |
| **010-10206-00** PC interface cbl; eMAP & eTREX | 38.99 |
| **010-10215-00** MapSource US road&rec CD | 99.99 |
| **010-10215-03** MapSource MetroGuide CD D | 99.99 |
| **010-10227-00** Blank 8MB memory cartridge | 58.99 |
| **010-10468-00** MapSource MetroGuide CD | 99.99 |
| **eTREX** 12 ch mini GPS receiver ..... | 119.99 |
| **eTREX Summit** 12ch mini GPS/compass/barometric | 199.99 |
| **010-10203-00** Cig lighter cbl; eMAP & eTREX | 39.99 |
| **010-10205-00** Data cable; eMAP & eTREX | 22.99 |
| **010-10206-00** PC interface cbl; eMAP & eTREX | 38.99 |
| **NavTalk** Analog cellular phone/GPS combo .D | 199.99 |
| **010-10215-00** MapSource US road&rec CD | 99.99 |
| **GPS-V Deluxe** Turn-by-turn navigation GPS/soft | 399.99 |
| **GA-26C** Low prof remote ant w/cable/BNC | 89.99 |
| **010-10082-00** Power/data cable ..... | 27.99 |
| **010-10111-00** Mounting bracket ..... | 31.99 |
| **010-10117-01** Carying case .....D | 6.99 |
| **010-10117-02** Carying case ..... | 12.99 |
| **010-10165-00** PC cable w/cig adapter ..... | 45.99 |
| **010-10215-03** MapSource MetroGuide CD D | 99.99 |
| **010-10468-00** MapSource MetroGuide CD | 99.99 |
| **Forerunner 201** GPS/personal training device | 149.99 |
| **iQue-3600** Handheld PDA w/integrated GPS . | 549.99 |
| **Rino-120** GPS/FRS/GMRS w/8mb mem/basemap | 249.99 |
| **010-10117-02** Carying case; Rino-120 ..... | 12.99 |

## GEOCHRON (GEO)

| | |
|---|---|
| **World Watch** Day/night Windows software .. | $ 49.99 |

## Geochron - continued

| | AES Price |
|---|---|
| **Std Blk/Gold*** Std black/gold trim world clock/map | 999.99 |
| **$100 rebate from Geochron 11/1/03 thru 12/31/03!** | |
| **Std Oak/Gold*** Std oak/gold trim world clock/map | 999.99 |
| **$100 rebate from Geochron 11/1/03 thru 12/31/03!** | |

***These items are drop-shipped (shipped direct to you from the Geochron factory). On factory drop-shipments we prefer payment in full with order, however, we will accept your credit card with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your drop-shipped merchandise. Shipment is FOB Redwood City, California via UPS, COD for freight charges only. Freight charges will be collected upon delivery by the carrier. Please allow sufficient time for delivery on this special order item. Other Geochron models available on special order.**

## GLEN MARTIN (GME)

| | |
|---|---|
| **TOWERS** | |
| **M-1330A** 30' alum tower package w/Hazer .T | 1614.99 |
| **M-1340A** 40' alum tower package w/Hazer .T | 1831.99 |
| **M-1350A** 50' alum tower package w/Hazer .T | 2069.99 |
| **M-1840A** 40' alum tower package w/Hazer .T | 2149.99 |
| **M-1850A** 50' alum tower package w/Hazer T | 2409.99 |
| **M-1860A** 60' alum twr pack w/Voyager Hazer T | 3355.99 |
| **M-1870A** 70' alum twr pack w/Voyager Hazer T | 3659.99 |
| **ML-1800** Messenger line kit for GME towers .. | 72.99 |
| **KB-1000** 57" side arm; M-13 series ..... | 81.99 |
| **KB-1300** 57" side arm; M-18 series ..... | 84.99 |
| **M-22** 10' galv steel M-22 tower section ..... | 431.99 |
| **CHB-22** Footing assembly for M-22 ..... | 260.99 |
| **B-22** Leveling base for M-22 ..... | 379.99 |
| **ROOF-TOP TOWERS** | |
| **RT-424** 4.5' roof-top tower, anodized aluminum | $163.99 |
| **RT-832** 8' roof-top tower, anodized aluminum | 242.99 |
| **RT-936** 9' roof-top tower, anodized aluminum | 396.99 |
| **RT-1832** 17.5' roof-top tower, anodized aluminum | 531.99 |
| **RT-2632** 26' roof-top tower, anodized aluminum | 879.99 |
| **MC-10** Mast clamp; aluminum, 2 required | 24.99 |
| **TB-25** Premium thrust bearing ..... | 89.99 |
| **LB-3755** Lag bolts, set of 8 3/8 x 5" ..... | 9.99 |
| **EL-3744** Concrete L-bolts, set of 8 ..... | 14.99 |
| **RA-6024** 24" side arm for roof towers ..... | 41.99 |
| **RA-6048** 48" side arm for roof towers ..... | 54.99 |
| **HAZERS FOR ROHN TOWERS** | |
| **H-2** Heavy duty aluminum Hazer system ..... | $360.99 |
| **H-3** Standard duty aluminum Hazer system . | 273.99 |
| **H-4** Heavy duty galv steel Hazer system ..... | 348.99 |
| **BW-8001** Brake winch for H-2/3/4 ..... | 80.99 |
| **HR-2040** Roller bearing set for Hazers ..... | 64.99 |
| **HR-6010** T²X plates for H-2/3/4/5 ..... | 26.99 |
| **HS-1301** Side arm for Hazers ..... | 64.99 |
| **ML-2500** Messenger line kit for Rohn towers | 76.99 |
| **VH8-60** Voyager Hazer for 60' Rohn 45G ..... | 1409.99 |
| **VH8-70** Voyager Hazer for 70' Rohn 45G ..... | 1544.99 |
| **VH9-50** Voyager Hazer for 50' Rohn 55G ..... | 1329.99 |
| **VH9-60** Voyager Hazer for 60' Rohn 55G ..... | 1449.99 |
| **VH9-70** Voyager Hazer for 70' Rohn 55G ..... | 1564.99 |
| **LIGHTNING PROTECTION** | |
| **LR-8400** Premium lightning rod kit ..... | $ 99.99 |
| **GR-4400** Ground rod wire clamp ..... | 6.99 |
| **GR-5080** 8' x 5/8" ground rod ..... | 20.99 |
| **TL-0470** Terminal lug ..... | 2.99 |
| **LR-8418** Lightning rod point, 18" long ..... | 38.99 |
| **LR-8452** Clamp for holding rod to 2" mast | 25.99 |
| **LR-8451** Clamp for holding rod to 1 3/16" mast | 24.99 |
| **CW-2540** 25' #4 bare copper ground wire .. | 20.99 |
| **CW-5040** 50' #4 bare copper ground wire .. | 41.99 |
| **CW-7540** 75' #4 bare copper ground wire .. | 59.99 |
| **CW-1040** 100' #4 bare copper ground wire .. | 66.99 |
| **CW-1240** 125' #4 bare copper ground wire .. | 98.99 |
| **CW-1540** 150' #4 bare copper ground wire .. | 118.99 |


Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

## Glen Martin - continued AES Price

### GUYING

| | | |
|---|---|---|
| HP-3000 | Kevlar guy cable, 3000# break strength per ft | $ .99 |
| HP-4500 | Kevlar guy cable, 4500# break strength per ft | 1.49 |
| HP-7500 | Kevlar guy cable, 7500# break strength per ft | 1.99 |
| WR-125 | 1/8" galv 7 x 7 guy cable .....per ft. | .49 |
| WR-380 | 3/8" galv 7 x 7 guy cable .....per ft. | .69 |
| WRS-156 | 5/32" stainless 7 x 19 guy cable per ft. | .79 |
| WRS-187 | 3/16" stainless 7 x 19 guy cable per ft. | .89 |
| WRS-250 | 1/4" stainless 7 x 19 guy cable per ft. | .99 |
| WR-1862 | 3/8" U-bolt clip (also for Kevlar 3000/4500) | 1.69 |
| WR-2565 | 1/4" U-bolt clip (also for Kevlar 7500) | 1.69 |
| WR-3164 | 5/16" U-bolt clip | 1.99 |
| PT-2500 | 1/4" heavy duty thimble (for all Kevlar) | 2.69 |
| PT-3100 | 5/16" heavy duty thimble | 2.99 |
| PT-3700 | 3/8" heavy duty thimble | 3.39 |
| H-165 | 1/4" end cap (for Kevlar 3000/4500) | .79 |
| H-164 | 5/16" end cap (for Kevlar 7500) | .89 |
| H-142 | 3/8" end cap | .99 |
| RG-4010 | 1/2" link connecting earthscrew to turnbuckle | 8.99 |
| ES-40 | 4" dia x 30" earth screw | 22.99 |
| EG-40 | 4" dia x 30" galvanized earth screw | 33.99 |
| ES-60 | 6" dia x 48" earth screw | 39.99 |
| EG-60 | 6" dia x 48" galvanized earth screw | 55.99 |
| ES-80 | 8" dia x 66" earth screw | 68.99 |
| TB-3806 | 3/8" x 6" galvanized turnbuckle | 18.99 |
| TB-5009 | 1/2" x 9" galvanized turnbuckle | 24.99 |
| TB-6212 | 5/8" x 12" galvanized turnbuckle | 41.99 |

### MASTS

| | | |
|---|---|---|
| M-1049 | 9' x 2" OD heavy duty galv steel mast | $ 79.99 |
| M-1040 | 10' x 2" OD heavy duty galv steel mast T | 84.99 |
| MA-1040 | 10' x 1.92" OD medium duty alum mast T | 94.99 |
| MA-1049 | 9' x 1.92" OD medium duty alum mast | 89.99 |
| MA-2069 | 9' x 2.375" OD heavy duty alum mast | 99.99 |
| MA-1050 | 5' x 1.92" OD medium duty alum mast | 61.99 |
| MA-5050 | 5' x 1.31" OD light duty alum mast | 41.99 |
| MP-1409 | 9' x 2" OD .250 wall xtra HD fg mast | 129.99 |
| MP-1809 | 9' x 2" OD .125 wall med dty fg mast | 76.99 |

### SIDE ARMS

| | | |
|---|---|---|
| HS-2500 | 36" universal side arm mount | $ 65.99 |
| HS-6000 | 52" universal side arm mount | 78.99 |

### WINCHES

| | | |
|---|---|---|
| B-800 | 800 lb capacity w/4.5:1 gear ratio | $ 72.99 |
| W-1100 | 1100 lb capacity w/3.9:1 gear ratio | 42.99 |
| B-2000 | 2000 lb capacity w/17:1 gear ratio | 126.99 |
| WA-1200 | 4000 lb electric winch, 115 vac | 489.99 |
| WD-1200 | 4000 lb electric winch, 12 vdc | 448.99 |
| W-6371 | Pendant for 12 vdc | 178.99 |
| W-6372 | Pendant for 115 vac | 102.99 |

### TOWER CLIMBING EQUIPMENT

| | | |
|---|---|---|
| FP-5600 | 2 d-ring full body climbing harness (S-M) | $ 89.99 |
| FP-5601 | 2 d-ring full body climbing harness (L-XL) | 89.99 |
| FP-5602 | 4 d-ring full body climbing harness (S-M) | 106.99 |
| FP-5603 | 4 d-ring full body climbing harness (L-XL) | 106.99 |
| FP-6600 | 6 d-ring full body climbing harness (XS) | 260.99 |
| FP-6601 | 6 d-ring full body climbing harness (S) | 236.99 |
| FP-6602 | 6 d-ring full body climbing harness (M) | 236.99 |
| FP-6603 | 6 d-ring full body climbing harness (L) | 236.99 |
| FP-6604 | 6 d-ring full body climbing harness (XL) | 236.99 |
| FP-7600 | AeroClimber 6 d-ring saddle harness (XS) | 231.99 |
| FP-7601 | AeroClimber 6 d-ring saddle harness (S) | 209.99 |
| FP-7602 | AeroClimber 6 d-ring saddle harness (M) | 209.99 |
| FP-7603 | AeroClimber 6 d-ring saddle harness (L) | 209.99 |
| FP-7604 | AeroClimber 6 d-ring saddle harness (XL) | 209.99 |
| FP-2606 | 1"x6' web lanyard/dbl locking snaphooks | 32.99 |
| FP-2903 | 1"x3' web lanyard, 3/4" throat, snaphooks | 38.99 |
| FP-2904 | 1"x4' web lanyard, 3/4" throat, snaphooks | 39.99 |
| FP-2905 | 1"x5' web lanyard, 3/4" throat, snaphooks | 39.99 |
| FP-2906 | 1"x6' web lanyard, 3/4" throat, snaphooks | 40.99 |
| FP-2913 | 1"x3' web lanyard, 3/4"&1 3/8" throat openings | 63.99 |
| FP-2914 | 1"x4' web lanyard, 3/4"&1 3/8" throat openings | 64.99 |

## Glen Martin - continued AES Price

| | | |
|---|---|---|
| FP-2915 | 1"x5' web lanyard, 3/4"&1 3/8" throat openings | 64.99 |
| FP-2916 | 1"x6' web lanyard, 3/4"&1 3/8" throat openings | 65.99 |
| FP-2923 | 1"x3' web lanyard, 3/4"&2 1/2" throat openings | 69.99 |
| FP-2924 | 1"x4' web lanyard, 3/4"&2 1/2" throat openings | 70.99 |
| FP-2925 | 1"x5' web lanyard, 3/4"&2 1/2" throat openings | 70.99 |
| FP-2926 | 1"x6' web lanyard, 3/4"&2 1/2" throat openings | 71.99 |

**All GLEN MARTIN orders are plus freight at Glen Martin's rates direct to you from the factory. There is also a $75 residential address delivery charge on M-13 & M-18 series towers. We prefer payment in full with order, however, we will accept your credit card with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your order. Please allow sufficient delivery time. Most truck lines will not unload towers, so please be sure to have enough manpower and/or equipment on hand.**

## GROTHE (GRO)

| | | |
|---|---|---|
| VS-2 | Emergency vehicle siren | $ 89.99 |
| VS-2LS/A | Window mt siren/amber halogen | 299.99 |
| VS-2LS/B | Window mt siren/blue halogen | 299.99 |
| VS-2LS/R | Window mt siren/red halogen | 299.99 |
| VS-3 | Volunteer vehicle PA/horn w/spkr | 129.99 |
| VS-4 | P/A emergency vehicle siren w/spkr | 139.99 |

## GRUNDIG (GRU)

| | | |
|---|---|---|
| e-Traveller VII | Mini AM/FM/SW Rcvr | $ 79.99 |
| e-Zone | FM receiver ....Δ | 14.99 |
| FR-200 | AM/FM/SW/flashlight/crank | 39.99 |
| G-2000A | Porsche design AM/FM/SW receiver | 79.99 |
| MiniWorld 100PE | Mini AM/FM/SW receiver | 29.99 |
| S-350 | AM/FM/SW receiver | 99.99 |
| Satellit 800 | AM/FM/SW/LW/aircraft receiver | 499.99 |
| Yacht Boy 300PE | Port AM/FM/SW/LW Rcvr | 79.99 |
| Yacht Boy 400PE | Port AM/FM/SW/LW Rcvr/ps | 149.99 |

## HAL (HAL)

| | | |
|---|---|---|
| DSP-4100/2K | HF DSP modem ....special order | 1495.99 |
| DXP-38 | External DSP HF radio modem ....Δ | 369.99 |
| RTTY-1 | RTTY tuning indicator | 99.99 |

## HARGER (HRG)

| | | |
|---|---|---|
| GBIS18114AE | 1/8" copper entrance ground bar kit | $ 27.99 |
| GBIS18148AE | 1/8" copper station ground bar kit | 64.99 |
| GEL3AE | Package of 5 HD grounding lugs | 15.99 |
| GP1868.78AE | 1/8" copper single pt gnd panel kit | 54.99 |
| GBX976AE | NEMA-4x weatherproof enclosure | 89.99 |

## HEIL (HEI)

| | | |
|---|---|---|
| BM-5-4 | Boom mic/single headset (HC-4) | $ 69.99 |
| BM-5-5 | Boom mic/single headset (HC-5) | 69.99 |
| BM-5-IC | Boom mic/single headset/adapter; Icom | 86.99 |
| BM-10-4 | Boom mic/headset (HC-4) | 89.99 |
| BM-10-5 | Boom mic/headset (HC-5) | 89.99 |
| BM-10-IC | Boom mic/headset/adapter; Icom | 106.99 |
| PRO-SET-4 | Deluxe boom mic/headset (HC-4) | 130.99 |
| PRO-SET-5 | Deluxe boom mic/headset (HC-5) | 130.99 |
| PRO-SET-IC | Dlx boom mic/headset/adapter; Icom | 147.99 |
| PRO-SET-PLUS | Dlx boom mic/headset (HC4&5) | 189.99 |
| PRO-SET-PLUS-IC | Dlx bm mic/hdset (HC4&5); Ico | 206.99 |
| AD-1-I | Pro-Set 8-pin adapter cord for Icom | 17.99 |
| AD-1-K | Pro-Set 8-pin adapt cord; Kenwood | 17.99 |
| AD-1-T | Pro-Set 4-pin adapt cord; Ten-Tec | 17.99 |
| AD-1-Y | Pro-Set 8-pin adapter cord; Yaesu | 17.99 |
| AD-1-I-M | Pro-Set modular adapt cord; Ico | 17.99 |
| AD-1-K-M | Pro-Set modular adapt cord; Ken | 17.99 |
| AD-1-Y-M | Pro-Set modular adapt cord; Yae | 17.99 |
| Traveler-8PIC | Bm mic/single headset; 8-pin Icom | 89.99 |
| Traveler-706 | Boom mic/single headset; IC-706 | 89.99 |
| Traveler-K | Boom mic/single headset; Ken 8-pin | 89.99 |
| Traveler-KM | Bm mic/sgl headset; Ken modular | 89.99 |
| Traveler-YM | Bm mic/sgl headset; Yae modular | 89.99 |
| FS-1M | Foot switch w/modular plug; IC-706 D | 30.99 |
| FS-2 | Dual switch foot switch | 38.99 |

## Heil - continued AES Price

| | | |
|---|---|---|
| HS-1 | Hand switch | 25.99 |
| HC-4 | DX'ers 'dream machine' mic element | 30.99 |
| HC-5 | Key microphone element | 30.99 |
| AD-100 | Mic/boomset adapt; FT-100/AD-1Y/CC-1Y | 25.99 |
| ADM-Y817 | Mic/boomset adapt; FT817/AD1Y/CC1Y | 25.99 |
| HMP-M | In-line mic pre/mod plug; 706/MkII .D | 29.99 |
| GM-4 | Goldline dual element studio mic w/HC-4 | 140.99 |
| GM-5 | Goldline dual element studio mic w/HC-5 | 140.99 |
| GM-V | Goldline vintage studio mic/matching xfmr | 155.99 |
| HCL-4 | Classic 1930's desk mic/studio el & HC-4 | 229.99 |
| HCL-5 | Classic 1930's desk mic/studio el & HC-5 | 229.99 |
| HM-10-4 | Microphone with HC-4 element | 65.99 |
| HM-10-5 | Microphone with HC-5 element | 65.99 |
| HM-10-Dual | Mic w/HC-4 & HC-5 elements | 115.99 |
| HM-1 | Studio condensor microphone; Icom ..D | 89.99 |
| ICM | Pre-PRO Icom electret mic w/cable | 89.99 |
| CC-1-C | 3/16" plug cable for Collins/Drake | 33.99 |
| CC-1-D | 4-pin cable for Drake | 30.99 |
| CC-1-I | 8-pin cable for Icom | 30.99 |
| CC-1-I-M | Modular cable for Icom | 30.99 |
| CC-1-K | 8-pin cable for Kenwood | 30.99 |
| CC-1-K-M | Modular cable for Kenwood | 30.99 |
| CC-1-T | Cable for Ten-Tec | 30.99 |
| CC-1-Y | 8-pin cable for Yaesu | 30.99 |
| CC-1-Y-M | Modular cable for Yaesu | 30.99 |
| HSTA-706 | Adapt; HM-I - Icom 706/modular plug | 20.99 |
| PL-2 | Proline boom ....D | 65.99 |
| PL-2T | Topless proline boom | 75.99 |
| SB-1 | Small adjustable mic boom w/C clamp | 33.99 |
| TB-1 | Table base microphone stand | 25.99 |
| HMM-IC | Condensor hand mic/8-pin plug; Icom | 58.99 |
| HMM-K | Dual el hand mic/HC-4/8-pin plug; Ken | 78.99 |
| HMM-Y | Dual el hand mic/HC-4/8-pin plug; Yae | 78.99 |
| HQP | Quiet Phone Noise cancelling headphones | 99.99 |
| Boom Clip | for BM-series | 5.99 |
| Ear Pads | for BM-series ....pair | 5.99 |
| Ear Pads | for PRO-series ....pair | 6.99 |
| Ham Radio Handbook | | 12.95 |
| CB-1 | Classic base | 65.99 |
| HD-AT | 6db headph attenuator, 1/4"m-1/4"f adapt | 5.99 |
| SM-1 | Shock mount for any microphone boom | 50.99 |
| TM-1 | Tri-mount microphone adapter | 14.99 |
| XT-1 | Audio matching xfmr; lo-Z mic/tube Xcvr | 15.99 |

## HIGH SIERRA (HIS)

| | | |
|---|---|---|
| Platinum Pack | Black HS-1800/Pro w/install kit | $495.00 |
| HS-120 | Capacity hat | 50.00 |
| HS-202CL | 2" rcvr lay back adapter; univ mtg bkt | 100.00 |
| HS-214CL | 1 1/4" rcvr lay back adapt; univ mtg bkt | 100.00 |

## HobbyZone (HBZ)

| | | |
|---|---|---|
| 1500 | Firebird II RTF electric airplane | $ 79.99 |
| 2500 | Firebird Commander RTF electric airplane | 119.99 |
| 3305 | Zig Zag Racer RTR electric boat | 79.99 |
| 3500 | Aerobird Challenger RTF electric airplane | 149.99 |
| 4000 | Fighterbird RTF electric airplane | 119.99 |
| 7800 | Sky Surfer RTF electric airplane | 249.99 |
| 4025F | Stealth target w/combat module/FTB | 19.99 |

## HUSTLER (HUS)

| | | |
|---|---|---|
| RM-80 | 80m CW 400w PEP resonator | $ 26.99 |
| RM-75 | 75m phone 400w PEP resonator | 26.99 |
| RM-60 | 60m phone resonator | 26.99 |
| RM-40 | 40m 400w PEP resonator | 24.99 |
| RM-30 | 30m 400w PEP resonator | 24.99 |
| RM-20 | 20m 400w PEP resonator | 21.99 |
| RM-17 | 17m 400w PEP resonator | 21.99 |
| RM-15 | 15m 400w PEP resonator | 15.99 |
| RM-12 | 12m 400w PEP resonator | 15.99 |
| RM-11 | CB 400w PEP resonator | 15.99 |
| RM-10 | 10m 400w PEP resonator | 15.99 |

## Hustler - continued

| | AES Price |
|---|---|
| **RM-80S** 80m CW 2kw PEP resonator | 49.99 |
| **RM-75S** 75m phone 2kw PEP resonator | 49.99 |
| **RM-40S** 40m 2kw PEP resonator | 35.99 |
| **RM-20S** 20m 2kw PEP resonator | 28.99 |
| **RM-15S** 15m 2kw PEP resonator | 24.99 |
| **RM-11S** CB 2kw PEP resonator | 23.99 |
| **RM-10S** 10m 2kw PEP resonator | 23.99 |
| **MO-1** 54" mast for fender or deck mount | 31.99 |
| **MO-2** 54" mast for bumper mount | 31.99 |
| **MO-3** 54" no break-over mast | 23.99 |
| **MO-4** 22" mast for special applications | 19.99 |
| **VP-1** Tri-band adapter | 5.99 |
| **RSS-2** Resonator spring | 9.99 |
| **QD-2** Stainless quick disconnect | 19.99 |
| **L-14-144** 12' RG-58, PL-259 to lugs | 9.99 |
| **L-14-240** 20' RG-58, PL-259 to lugs | 12.99 |

### STAINLESS 2" MOBILE BALL MOUNTS

| | |
|---|---|
| **SSM-1** Ball & spring, cadmium hardware | $ 46.99 |
| **SSM-2** Ball, cadmium hardware | 26.99 |
| **SSM-3** Stainless steel spring | 24.99 |

### 1-1/2" MOBILE BALL MOUNTS

| | |
|---|---|
| **C-32** Chrome plated ball | $ 11.99 |
| **C-30** Chrome plated spring | 11.99 |
| **C-29** Stainless steel spring | 17.99 |
| **BM-1** Single strap bumper mt w/C-32 | 21.99 |

### 3/8-24 THREAD MOBILE MOUNTS

| | |
|---|---|
| **HLM** Trunk lip mount w/swivel | $ 22.99 |
| **HOT** Hustloff trunk lip mt w/swivel | 23.99 |
| **MBM** Super magnet mount w/16' coax | 19.99 |
| **RVM** Recreational vehicle mount | 20.99 |
| **TLM** Trunk lip mount | 21.99 |

### HF ANTENNAS

| | |
|---|---|
| **4-BTV** 40/20/15/10m 21' trap vertical | $119.99 |
| **5-BTV** 80/40/20/15/10m 25' trap vertical | 149.99 |
| **30-MTK** 30m trap kit for 4-BTV/5-BTV | 41.99 |
| **6-BTV** 80/40/30/20/15/10m 24' trap vert | 179.99 |

### VHF/UHF BASE STATION ANTENNAS

| | |
|---|---|
| **G3-144** 2m 3db 7.5' vertical antenna | $ 63.99 |
| **G6-144B** 2m 6db 10' vertical antenna | 114.99 |
| **G6-270R** 2m/440 6db 7.6' base station ant | 159.99 |
| **G7-144** 2m 7db 15' vertical antenna | 159.99 |
| **G7-220** 220 MHz 7db 10' vertical antenna | 149.99 |
| **G6-440** 440 MHz 6db 7' vertical antenna | 139.99 |

### VHF/UHF MOBILE ANTENNAS

| | |
|---|---|
| **BBG-144** 2m 3.4db NMO coil/whip only | $ 39.99 |
| **BBGT-144** 2m 3.4db NMO trunk lip mt ant | 49.99 |
| **BBG-440-5** 440 5db NMO coil/whip only | 39.99 |
| **BBGT-440-5** 440 5db NMO trunk lip mt ant | 49.99 |
| **BBL-144A** 2m ¾" hole mt antenna, 3.4db | 39.99 |
| **BBLT-144A** 2m trunk lip mt ant, 3.4db | 47.99 |
| **CG-144** 2m ⅜-24 ant, 7' high, 5.2db | 31.99 |
| **CGT-144** 2m trunk mt ant, 7' high, 5.2db | 51.99 |
| **CG-220** 220 MHz ⅜-24 ant, 5.2db | 29.99 |
| **CGT-220** 220 MHz 5.2db tnk mt ant Δ | 39.99 |
| **LMB-144** 2m 3.4db black NMO coil/whip only | 22.99 |
| **LMB-440-5** 440 5db black NMO coil/whip only | 19.99 |
| **LMC-144** 2m 3.4db NMO coil/whip only | 19.99 |
| **LMC-270** 2m/440 2.4/4db NMO coil/whip only | 31.99 |
| **LMC-440-5** 440 5db NMO coil/whip only | 19.99 |
| **LMG-144** 2m 3.4db NMO pushpin coil/whip only | 25.99 |
| **LMG-440-5** 440 5db NMO pushpin coil/whip only | 19.99 |
| **MKR-2** Radial kit for CG/RX/SF-antennas | 20.99 |
| **MX-2** 2m 3db black & chrome NMO mag mt ant | 34.99 |
| **MX-2B** 2m 3db all black NMO mag mt ant | 39.99 |
| **MX-220** 220 3db blk & chrome NMO mag mt ant | 34.99 |
| **MX-270** 2m/440 2.4/4db chrome NMO mag mt ant | 59.99 |
| **MX-440** 440 5db blk & chrome NMO mag mt ant | 36.99 |
| **MX-440B** 440 5db all black NMO mag mt ant | 36.99 |
| **RX-2** 2m 3.4db magnetic mount ant | 24.99 |
| **RX-220** 220 3.4db magnetic mt antenna | 24.99 |

## Hustler - continued

| | AES Price |
|---|---|
| **RX-440** 440 5db magnetic mt antenna | 24.99 |
| **SF-2** 2m ⅜-24 ant, 4' high, 3.4 db | 14.99 |
| **SF-220** 220 MHz ⅜-24 antenna, 3 db | 14.99 |
| **THF** 140-500 MHz ¼ wave trunk mount ant | 23.99 |
| **UGM** 140-500 MHz ¼ wave BNC mag mt ant | 21.99 |
| **UHT-1** 140-500 MHz ¼ wave roof mt ant | 14.99 |

### CB & MONITOR ANTENNAS

| | |
|---|---|
| **1C-11** White trunk mount CB antenna | $ 13.99 |
| **1C-11B** Black trunk mt CB antenna | 13.99 |
| **1C-100** White magnetic mount CB antenna | 19.99 |
| **1C-100B** Black magnetic mt CB antenna | 19.99 |
| **DTG** 25" fg double-talk gutter mt CB ant | 39.99 |
| **FG-27S** 48" CB whip | 11.99 |
| **HQ-27** Power Packer ⅜-24 CB whip | 17.99 |
| **HQ-27M** Power Packer trunk mt CB antenna | 36.99 |
| **HQD** Dual fg mirror mount CB antenna | 49.99 |
| **HQT** Single fg mirror mount CB antenna | 27.99 |
| **HTM-1** Twin Husky fg ant w/mirror mts D | 14.99 |
| **RQM** Magnetic mount CB antenna | 19.99 |
| **RTG-27L** 25" CB antenna w/rain gutter mt | 26.99 |
| **RTM** 25" magnetic mount CB antenna | 16.99 |
| **RTS-27L** 25" CB antenna w/roof mount | 26.99 |
| **SCB/BLK** 46" black CB whip | 29.99 |
| **SCB/BLU** 46" blue CB whip | 29.99 |
| **SCB/RED** 46" red CB whip | 29.99 |
| **SCB/WHT** 46" white CB whip | 29.99 |
| **SCB-S/BLK** 35" black CB whip | 29.99 |
| **SCB-S/BLU** 35" blue CB whip | 29.99 |
| **SCB-S/RED** 35" red CB whip | 29.99 |
| **SCB-S/WHT** 35" white CB whip | 29.99 |
| **DCL-B** Discone monitor ant/50' coax/BNC plug | 34.99 |
| **DCX** Discone monitor ant; 40-700 MHz | 23.99 |
| **MOR-B** Roof/deck mt tri-band BNC monitor ant | 18.99 |
| **MOT** Trunk lip mt tri-band Motorola plug mon ant Δ | 12.99 |
| **MOT-B** Trunk lip mt tri-band BNC monitor ant | 19.99 |
| **MRM-B** Magnet mt tri-band BNC monitor ant | 19.99 |

# HY-GAIN (HYG)

| | |
|---|---|
| **190S** RRK-88 Roof radial kit Δ | $ 19.99 |

### HF BEAM ANTENNAS

| | |
|---|---|
| **LJ-103BA** 3el 7.9db 8' boom 10m beam | $159.99 |
| **LJ-105CA** 5el 10.8db 24' boom 10m beam | 289.99 |
| **LJ-153BA** 3el 7.9db 12' boom 15m beam | 209.99 |
| **LJ-204BA** 4el 8.2db 26' boom 20 or 17m beam | 539.99 |
| **TH-3JRS** 3el 600w PEP 20/15/10m beam | 359.99 |
| **TH-3MK4** 3el 8db 14' boom 20/15/10m beam | 469.99 |
| **TH-5MK2** 5el 8.3db 19' boom 20/15/10m beam | 699.99 |
| **TH-7DX** 7el 8.77db 24' boom 20/15/10m beam | 799.99 |
| **BN-86** 3-30MHz balun for HF beam | 79.99 |

### MULTI-BAND HF VERTICAL ANTENNAS

| | |
|---|---|
| **AV-14AVQ** 40/20/15/10m 18' vertical ant | $169.99 |
| **AV-18HT** HyTower 80/40/20/15/10m 53' vert T* | 799.99 |
| **AV-620** 20/17/15/12/10/6m 22.5' vertical | 269.99 |
| **AV-640** 40/30/20/17/15/12/10/6m 25.5' vert | 359.99 |
| **DX-88** 160/40/30/20/17/15/12/10m 25' vert | 369.99 |

***AV-18HT is drop-shipped (shipped direct to you from the Hy-Gain factory). On these factory drop-shipments we prefer payment in full with order, however, we will accept your credit card with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your drop-shipped merchandise. Shipment is FOB Starkville, Mississippi via truck, COD for freight charges only. Freight charges will be collected upon delivery by the carrier. Please allow sufficient time for delivery on these special order items.**

### VHF/UHF ANTENNAS

| | |
|---|---|
| **DB-218SAT** VHF/UHF Oscar Link system | $529.99 |
| **VB-25FM** 5el 11.2db 75" boom 2m beam | 59.99 |
| **VB-64DX** 4el 10.4db 12' boom 6m beam | 144.99 |

### ANTENNA ROTORS

| | |
|---|---|
| **AR-40** 3 sq ft antenna rotor/5-wire | $269.99 |

## Hy-Gain - continued

| | AES Price |
|---|---|
| **CD-45-II** 8.5 sq ft antenna rotor/8-wire | 369.99 |
| **HAM-IV** 15 sq ft antenna rotor/8-wire | 529.99 |
| **HAM-V** Digital 15 sq ft antenna rotor/8-wire | 899.99 |
| **HDR-300A** Hvy duty dig 25 sq ft rotor/8-wire | 1229.99 |
| **T-2X** Tailtwister 20 sq ft antenna rotor/8-wire | 619.99 |
| **T-2XD** Tailtwister dig 20 sq ft ant rotor/8-wire | 979.99 |

### OPTIONAL ACCESSORIES FOR ROTORS

| | |
|---|---|
| **DCU-1** Dig rotor control; CD-45/HAM-IV/T-2X | $599.99 |
| **MSHD** Lwr mast support; HAM-IV/V/T-2X/XD | 99.99 |
| **MSLD** Lower mast support; CD-45-II/AR-40 | 39.99 |
| **TSP-1** Tower spacer plate | 34.99 |

**See BELDEN for rotor cable**

# iBOTZ (IBO)

| | |
|---|---|
| **MR-1001** Soundtracker robot kit | $ 29.99 |
| **MR-1002** Antoid robot kit | 49.99 |

# ICC (ICC)

| | |
|---|---|
| **Nitelogger II** Automatic tape recorder activator | $ 69.99 |

# ICOM (ICO)

| | |
|---|---|
| **FL-102** 6 KHz 9 MHz IF AM filter; 775DSP Δ | $ 79.99 |
| **MB-19** Rack mtg handles; IC-775DSP Δ | 59.99 |
| **UT-66** Voice synthesizer; IC-775DSP Δ | 69.99 |
| **IC-756PRO II** Xcvr/Rcvr/6m/IF-DSP/tuner/keyer | *2349.99 |
| ***Price w/instant coupon; coupon expires 12/31/03** | |
| **PS-125 ps FREE with IC-756PRO II! thru 12/31/03** | |
| (BET) **I-Mate** Msg acc; 746PRO/756PRO II | 74.99 |
| **PS-125** 25A switching power supply | 299.99 |
| **AH-4** 80-6m 120w auto wire ant tuner | 259.99 |
| **AH-2B** Whip w/mt; 40-6m use tuner | 299.99 |
| **AH-2B** extra **whip only** | 119.99 |
| **CT-17** CI-V level converter | 129.99 |
| **HM-36** Scanning hand mic | 74.99 |
| **OPC-025D** Extra DC cable | 29.99 |
| **SM-6** Desk microphone | 99.99 |
| **SM-20** Deluxe desk microphone | 199.99 |
| **SP-20** Speaker w/audio filter | 239.99 |
| **SP-21** External speaker | 119.99 |
| **UT-102** Voice synthesizer | 74.99 |
| **RS-746** Win remote control software; IC-746 .D | 69.99 |
| **IC-746PRO** Xcvr/Rcv/6m/2m/IF-DSP/tuner/mic | *1399.99 |
| ***Price w/instant coupon; coupon expires 12/31/03** | |
| **PS-125 ps FREE with IC-746PRO! thru 12/31/03** | |
| (BET) **I-Mate** Msg acc; 746PRO/756PRO II | 74.99 |
| **PS-125** 25A switching power supply | 299.99 |
| **AH-4** 80-6m 120w auto wire ant tuner | 259.99 |
| **AH-2B** Whip w/mt; 40-6m use tuner | 299.99 |
| **AH-2B** extra **whip only** | 119.99 |
| **CR-338** High stability crystal unit | 81.99 |
| **CT-17** CI-V level converter | 129.99 |
| **OPC-025D** Extra DC cable | 29.99 |
| **SM-6** Desk microphone | 99.99 |
| **SM-20** Deluxe desk microphone | 199.99 |
| **SP-20** Speaker w/audio filter | 239.99 |
| **SP-21** External speaker | 119.99 |
| **UT-102** Voice synthesizer | 74.99 |
| **UT-30** Tone encoder; IC-707 Δ | 49.99 |
| **IC-718** HF Xcvr/SW Rcvr/mic | 579.99 |
| **UT-106 DSP FREE with IC-718! thru 12/31/03** | |
| (BET) **706 Tune Control** for IC-718 | 32.99 |
| **PS-125** 25A switching power supply | 299.99 |
| **AH-4** 80-6m 120w auto wire ant tuner | 259.99 |
| **AH-2B** Whip w/mt; 40-6m use tuner | 299.99 |
| **AH-2B** extra **whip only** | 119.99 |
| **AT-180** Auto coax antenna tuner; HF+6m | 369.99 |
| **OPC-598** 23' extension cable for AT-180 | 69.99 |
| **CR-338** High stability crystal unit | 81.99 |
| **CT-17** CI-V level converter | 129.99 |
| **FL-52A** 500 Hz 455 KHz IF CW filter | 179.99 |
| **FL-53A** 250 Hz 455 KHz IF CW filter | 179.99 |
| **FL-96** 2.8 KHz 455 KHz IF SSB filter Δ | 139.99 |


Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

## Icom - continued

| | AES Price |
|---|---|
| **FL-222** 1.9 KHz 455 KHz IF SSB filter | 199.99 |
| **FL-257** 3.3 KHz 455 KHz IF SSB filter | 189.99 |
| Suggest dealer installation of filters in IC-718 | |
| **MB-5** Mobile mount | 59.99 |
| **MB-23** Side mount carrying handle | 15.99 |
| **OPC-025D** Extra DC cable | 29.99 |
| **SM-6** Desk microphone | 99.99 |
| **SM-20** Deluxe desk microphone | 199.99 |
| **SP-7** Small external speaker | 94.99 |
| **SP-20** Speaker w/audio filter | 239.99 |
| **SP-21** External speaker | 119.99 |
| **UT-102** Voice synthesizer | 74.99 |
| **UT-106** Plug-in DSP | 139.99 |
| **IC-703** 10w mini HF Xcvr/50 ohm tuner/DSP | 669.99 |
| **IC-703 Plus** 10w mini HF+6m Xcvr/tuner/DSP | 769.99 |
| **AH-4** 80-6m 120w auto wire ant tuner | 259.99 |
| **AH-2B** Whip w/mt; 40-6m use tuner | 299.99 |
| **AH-2B** extra **whip only** | 119.99 |
| **CT-17** CI-V level converter | 129.99 |
| **FL-52A** 500 Hz 455 KHz IF CW filter | 179.99 |
| **FL-53A** 250 Hz 455 KHz IF CW filter | 179.99 |
| **FL-222** 1.9 KHz 455 KHz IF SSB filter | 199.99 |
| **FL-257** 3.3 KHz 455 KHz IF SSB filter | 189.99 |
| **HM-118TN** TTP microphone | 59.99 |
| **LC-156** Back pack carrying case | 89.99 |
| **MB-62** Mounting bracket for main unit | 25.99 |
| **MB-63** Mounting bracket for control panel | 18.99 |
| **MB-65** Mounting base platform | 35.99 |
| **MB-72** Carrying handle | 14.99 |
| **OPC-581** 11.5' separation cable | 60.99 |
| **OPC-587** 16' separation cable | 79.99 |
| **OPC-599** 7+8-pin to 13-pin adapter | 60.99 |
| **OPC-742** 13-pin cable | 59.99 |
| **RMK-706** Package; MB-62/MB-63/OPC-581 | 70.99 |
| **SM-6** Desk microphone | 99.99 |
| **SM-20** Deluxe desk microphone | 199.99 |
| **OPC-589** 8-pin to jack adapt; SM-6/8/20 | 35.99 |
| **SP-7** Small external speaker | 94.99 |
| **SP-10** Slim-line external speaker | 69.99 |
| **UT-102** Voice synthesizer | 74.99 |
| **IC-706 Mk II-G** Mini Xcvr/Rcvr/6m/2m/440/DSP | 799.99 |
| RMK-706 FREE with IC-706 Mk II-G! thru 12/31/03 | |
| (BET) **706 Tune Contr**ol for IC-706-series | 32.99 |
| **PS-125** 25A switching power supply | 299.99 |
| **AH-4** 80-6m 120w auto wire ant tuner | 259.99 |
| **AH-2B** Whip w/mt; 40-6m use tuner | 299.99 |
| **AH-2B** extra **whip only** | 119.99 |
| **AT-180** Auto coax antenna tuner; HF+6m | 369.99 |
| **OPC-598** 23' extension cable for AT-180 | 69.99 |
| **CR-282** High stability crystal unit; Mk II G | 149.99 |
| Suggest dealer install; CR-282, IC-706 Mk II-G | |
| **CT-17** CI-V level converter | 129.99 |
| **FL-100** 500 Hz 9 MHz IF CW filter | 119.99 |
| **FL-101** 250 Hz 9 MHz IF CW filter | 119.99 |
| **FL-103** 2.8 KHz 9 MHz IF SSB filter | 109.99 |
| **FL-223** 1.9 KHz 9 MHz IF SSB filter | 89.99 |
| **FL-232** 350 Hz 9 MHz IF CW/RTTY filter | 89.99 |
| **HM-118TN** TTP microphone | 59.99 |
| **LC-156** Back pack carrying case | 89.99 |
| **MB-62** Mounting bracket for main unit | 25.99 |
| **MB-63** Mounting bracket for control panel | 18.99 |
| **MB-65** Mounting base platform | 35.99 |
| **MB-72** Carrying handle; Mk II-G only | 14.99 |
| **OPC-025D** Extra DC cable | 29.99 |
| **OPC-581** 11.5' separation cable | 60.99 |
| **OPC-587** 16' separation cable | 79.99 |
| **OPC-599** 7+8-pin to 13-pin adapter | 60.99 |
| **OPC-742** 13-pin cable | 59.99 |
| **RMK-706** Package; MB-62/MB-63/OPC-581 | 70.99 |
| **SM-6** Desk microphone | 99.99 |
| **SM-20** Deluxe desk microphone | 199.99 |

## Icom - continued

| | AES Price |
|---|---|
| **OPC-589** 8-pin to jack adapt; SM-6/8/20 | 35.99 |
| **SP-7** Small external speaker | 94.99 |
| **SP-10** Slim-line external speaker | 69.99 |
| **UT-102** Voice synthesizer | 74.99 |
| **AH-710** 1.9-30 MHz 80' folded dipole/98' coax | 269.99 |
| **PW-1** 160-15+6m linear amplifier/ps/tuner | 4699.99 |
| **OPC-137** Adapter cable; older Icom Xcvr Δ | 19.99 |
| **UT-86** Tone squelch; IC-706 Mk II only Δ | 69.99 |
| **RECEIVERS** | |
| **R-2-07*** .5MHz-1.3GHz AM/FM hand Rcvr ..D | $149.99 |
| **AD-92SMA** SMA- BNC adapter | 16.99 |
| **BC-127A** Extra nicad charger | 20.99 |
| **CS-R2** DOS programming software Δ | 4.99 |
| **OPC-474** Cloning cable (R-2 to R-2) | 18.99 |
| **OPC-478** PC RS-232C cable | 45.99 |
| **CSW-HHRX** Win prog soft/cable; R-2/R-10 | 50.99 |
| **HP-4** Lightweight headphones | 29.99 |
| **SP-13** Earphone | 4.99 |
| **R-5-06** .15M-1.3G AM/FM hand/batts/cgr/cell blkd | 199.99 |
| **R-5-11*** .5MHz-1.3GHz AM/FM hand Rcvr | 199.99 |
| **AD-92SMA** SMA- BNC adapter | 16.99 |
| **CP-18A** Cig lighter cable | 30.99 |
| **CS-R5** Win programming software | 40.99 |
| **OPC-474** Cloning cable (R-5 to R-5) | 18.99 |
| **OPC-478** PC RS-232C cable | 45.99 |
| **OPC-478U** PC USB cable | 60.99 |
| **HP-4** Lightweight headphones | 29.99 |
| **LC-146A** Carrying case | 24.99 |
| **R-3-26** .5M-2.45G AM/FM/TV hand Rcvr/cell blkd | 339.99 |
| **R-3-27*** .5MHz-2.45GHz AM/FM/TV hand Rcvr | 489.99 |
| **BC-135** Desktop charger w/adapter cup | 80.99 |
| **BP-206** Extra 3.7v 1650mah lith ion batt | 63.99 |
| **CP-18A** Cig lighter cable | 30.99 |
| **CS-R3** Win programming software | 24.99 |
| **OPC-474** Cloning cable (R-3 to R-3) | 18.99 |
| **OPC-478** PC RS-232C cable | 45.99 |
| **OPC-478U** PC USB cable | 60.99 |
| **HP-4** Lightweight headphones | 29.99 |
| **LC-151** Carrying case | 24.99 |
| **SP-13** Earphone | 4.99 |
| **R-10-05** .5M-1.3G AM/FM/SSB hand/cell blkd | 299.99 |
| **R-10-15*** .5MHz-1.3GHz AM/FM/SB HH Rcvr | 299.99 |
| **CP-12L** Right angle cig cable w/filter | 36.99 |
| **CS-R10** DOS programming software; R-10 | 13.99 |
| **OPC-474** Cloning cable (R-10 to R-10) | 18.99 |
| **OPC-478** PC RS-232C cable | 45.99 |
| **CSW-HHRX** Win prog soft/cable; R-10/R-2 | 50.99 |
| **CT-17** CI-V level converter | 149.99 |
| **HP-4** Lightweight headphones | 29.99 |
| **LC-140** Carrying case for R-10 | 38.99 |
| **OPC-254L** Right angle mini DC pwr cable | 14.99 |
| **SP-13** Earphone | 4.99 |
| **PCR-100-08*** .01-1300 PC controlled Rcvr ....D | 199.99 |
| **BON CS-40** Bonito soft; PCR-1000-02/07 ..Δ | 68.99 |
| **PCR-1000-02 BON** PC Rcvr/Bon soft/cell blkd | 374.99 |
| **PCR-1000-07 BON*** PC Rcvr/Bonito soft | 374.99 |
| **AH-7000** 25-1000 MHz discone ant w/coax | 169.99 |
| **OPC-131** DC power cord | 13.99 |
| **SP-7** Small external speaker | 94.99 |
| **SP-10** Slim-line external speaker | 69.99 |
| **UT-106** Plug-in DSP unit | 139.99 |
| **R-75** .03-60 MHz shortwave receiver | 599.99 |
| UT-106 DSP FREE with R-75! thru 12/31/03 | |
| **CR-282** High stability crystal unit | 149.99 |
| **CT-17** CI-V level converter | 129.99 |
| **FL-52A** 500 Hz 455 KHz IF CW filter | 179.99 |
| **FL-53A** 250 Hz 455 KHz IF CW filter | 179.99 |
| **FL-96** 2.8 KHz 455 KHz IF SSB filter Δ | 139.99 |
| **FL-100** 500 Hz 9 MHz IF CW filter | 119.99 |
| **FL-101** 250 Hz 9 MHz IF CW filter | 119.99 |
| **FL-103** 2.8 KHz 9 MHz IF SSB filter | 109.99 |

## Icom - continued

| | AES Price |
|---|---|
| **FL-222** 1.9 KHz 455 KHz IF SSB filter | 199.99 |
| **FL-223** 1.9 KHz 9 MHz IF SSB filter | 89.99 |
| **FL-232** 350 Hz 9 MHz IF CW/RTTY filter | 89.99 |
| **FL-257** 3.3 KHz 455 KHz IF SSB filter | 189.99 |
| **MB-5** Mobile mount | 59.99 |
| **MB-23** Side mount carrying handle | 15.99 |
| **OPC-869** DC cable | 13.99 |
| **RS-R75** PC control software w/RS-232 cable | 80.99 |
| **SP-21** External speaker | 119.99 |
| **UT-102** Voice synthesizer | 74.99 |
| **UT-106** Plug-in DSP unit | 139.99 |
| **R-8500-02** .1M - 2G receiver/cell blocked | 1399.99 |
| **R-8500-04*** .1MHz - 2GHz receiver | 1499.99 |
| **AH-7000** 25-1000 MHz discone ant w/coax | 169.99 |
| **CR-293** High stability xtal unit | 279.99 |
| **FL-52A** 500 Hz CW filter | 179.99 |
| **MB-12** Mobile mount | 49.99 |
| **MB-23** Side mount carrying handle | 15.99 |
| **RS-R8500** PC control soft w/RS-232 cable | 80.99 |
| **SP-7** Small external speaker | 94.99 |
| **SP-21** External speaker | 119.99 |
| **UT-102** Voice synthesizer | 74.99 |

*United States & state government agencies or a political subdivision thereof and communications utility companies and their legal agents **ONLY** may purchase unblocked models of R-2/R-3/R-5/R-10/PCR-100/PCR-1000/R-8500 for official government or communications utility company use only. Mail or FAX purchase order to AES. Exports: inquire.

### 2m TRANSCEIVERS

| | |
|---|---|
| **UT-101** DTMF unit for IC-2000H Δ | $ 28.99 |
| **IC-2100H-25N** 50w 2m FM Xcvr/NEW TTP mic | 169.99 |
| **CS-2100** DOS cloning software | 13.99 |
| **OPC-478** PC RS-232C cable | 45.99 |
| **CSW-2100** Win prog soft/cable; IC-2100H | 50.99 |
| **HM-90A** Wireless microphone Δ | 119.99 |
| **BC-96** Wireless microphone holder Δ | 29.99 |
| **EX-1759** Infrared receiver Δ | 99.99 |
| **HM-133S** Extra TTP mic; 2100H/2100H25N | 90.99 |
| **MB-17A** Quick release bracket | 49.99 |
| **MB-28H** Extra mobile bracket | 26.99 |
| **OPC-346** Extra 9.8' DC cable | 28.99 |
| **OPC-347** 23' DC cable | 46.99 |
| **OPC-440** 16.4' mic extension cable | 85.99 |
| **OPC-441** 16.4' speaker extension cable | 33.99 |
| **OPC-474** Radio to radio cloning cable | 18.99 |
| **OPC-589** 8-pin mic jack adapter cable | 35.99 |
| **OPC-647** 8.2' mic extension cable | 54.99 |
| **SP-10** Slim-line external speaker | 69.99 |
| **IC-V8000** 75w 2m FM Xcvr w/WX alert/scan | 199.99 |
| **CS-V8000** Windows cloning software | 35.99 |
| **OPC-478** PC RS-232C cable | 45.99 |
| **OPC-478U** PC USB cable | 60.99 |
| **OPC-347** 23' DC cable | 46.99 |
| **OPC-440** 16.4' mic extension cable | 85.99 |
| **OPC-441** 16.4' speaker extension cable | 33.99 |
| **OPC-474** Radio to radio cloning cable | 18.99 |
| **OPC-589** 8-pin mic jack adapter cable | 35.99 |
| **OPC-647** 8.2' mic extension cable | 54.99 |
| **OPC-1132** 9.8' DC cable | 28.99 |
| **SP-10** Slim-line external speaker | 69.99 |
| **UT-108** DTMF decoder unit | 35.99 |
| **V8000-MMB** Extra mobile bracket | 26.99 |
| **CS-207** DOS prog software; IC-207H Δ | 9.99 |
| **CSW-207/2710** Win cloning soft; 207/2710 Δ | 30.99 |
| **HM-98S** Extra TTP mic; original IC-2100H . D | 90.99 |
| **OPC-600** 11.5' separation cable; IC-207H .Δ | 45.99 |
| **OPC-646** Prog cbl; CS-207//CSW-207/2710 Δ | 89.99 |
| **RMK-3** Package; MB-58/OPC-600/OPC-647 Δ | 84.99 |
| **UT-89** Tone scan/decode unit; IC-2350H Δ | 89.99 |
| **UT-104** Tone squelch unit; IC-2710H Δ | 39.99 |

## Icom - continued

| | AES Price |
|---|---|
| **IC-208H** 55w 2m/50w 440 FM Xcvr | 329.99 |
| **CS-208** Win cloning software | 35.99 |
| **OPC-478** PC RS-232C cable | 45.99 |
| **OPC-478U** PC USB cable | 60.99 |
| **MB-17A** Quick release bracket | 49.99 |
| **MB-58** Remote controller bracket | 39.99 |
| **MB-65** Mounting base platform | 35.99 |
| **OPC-347** 23' DC cable | 46.99 |
| **OPC-440** 16.4' mic extension cable | 85.99 |
| **OPC-441** 16.4' speaker extension cable | 33.99 |
| **OPC-474** Radio to radio cloning cable | 18.99 |
| **OPC-589** 8-pin mic jack adapter cable | 35.99 |
| **OPC-601** 23' separation cable | 60.99 |
| **OPC-647** 8.2' mic extension cable | 54.99 |
| **OPC-1132** 9.8' DC cable | 28.99 |
| **SP-10** Slim-line external speaker | 69.99 |
| **IC-2720H** 50w 2m/35w 440 FM Xcvr | 379.99 |
| **CS-2720** Win/DOS cloning software | 35.99 |
| **OPC-478** PC RS-232C cable | 45.99 |
| **OPC-478U** PC USB cable | 60.99 |
| **MB-17A** Quick release bracket | 49.99 |
| **MB-84** Extra remote controller bracket | 18.99 |
| **MB-65** Mounting base platform | 35.99 |
| **MB-85** Combination bracket | 25.99 |
| **OPC-347** 23' DC cable | 46.99 |
| **OPC-440** 16.4' mic extension cable | 85.99 |
| **OPC-441** 16.4' speaker extension cable | 33.99 |
| **OPC-474** Radio to radio cloning cable | 18.99 |
| **OPC-589** 8-pin mic jack adapter cable | 35.99 |
| **OPC-647** 8.2' mic extension cable | 54.99 |
| **OPC-1132** 9.8' DC cable | 28.99 |
| **OPC-1156** 11.5' separation cable | 26.99 |
| **SP-10** Slim-line external speaker | 69.99 |
| **CS-2800** Windows cloning software; 2800H Δ | 12.99 |
| **OPC-872** Controller extension cable; 2800H Δ | 24.99 |
| **UT-84** Tone squelch unit; IC-2700H/821H ..Δ | 89.99 |
| **IC-910H** 100w 2m/75w 430 FM/SSB Xcvr | 1099.99 |
| **PS-125** 25A switching power supply | 299.99 |
| **AG-25** 2m mast mounted GaSFET preamp | 159.99 |
| **AG-35** 430 MHz mast mounted preamp | 169.99 |
| **AG-1200** 1.2 GHz mast mt preamp | 159.99 |
| **AG-2400** 2.4GHz mast mt down converter | 499.99 |
| **CR-293** High stability xtal unit | 279.99 |
| **CT-17** CI-V level converter | 129.99 |
| **FL-132** 500 Hz main Rcvr CW filter | 119.99 |
| **FL-133** 500 Hz sub band Rcvr CW filter | 119.99 |
| **MB-5** Mobile mount | 59.99 |
| **MB-23** Side mount carrying handle | 15.99 |
| **SM-20** Deluxe desk microphone | 199.99 |
| **SP-7** Small external speaker | 94.99 |
| **SP-10** Slim-line external speaker | 69.99 |
| **UT-102** Voice synthesizer | 74.99 |
| **UT-106** Plug-in DSP unit (one per band) | 139.99 |
| **UX-910** 10w 1.2GHz module | 499.99 |
| **ID-1** 10w 1.2GHz FM/128k digital Xcvr/ctl head | 1349.99 |
| **ID-RP1D/VS** 1.2GHz analog/digital repeater | 3899.99 |
| **ID-RP1L** 10GHz backbone digital repeater | 6299.99 |
| **AH-1080** 10GHz parabola antenna | 1099.99 |
| **AH-1415** 1.2GHz colinear antenna | 2169.99 |

### Accessories for IC-2AT

| | |
|---|---|
| **BC-25U** Extra wall cgr; BP-3 only ....Δ | $ 19.99 |
| **BM-112U**/BC-16U Wall cgr; 5A/7/8 only ....Δ | 26.99 |
| **BP-4** Alkaline battery case ....Δ | 35.99 |
| **BP-8** 8.4v 800mah long life battery ....D | 99.99 |
| **CP-1** Cig cgr; BP-3/7/8//DC cord ....Δ | 24.99 |
| **CP-11** Cig cord w/noise filter ....Δ | 39.99 |
| **DC-1** DC operation module ....Δ | 39.99 |
| **IC-T2H Sport** 6w 2m FM HT/battery holder | 99.99 |
| **AD-81** Batt pack adapter for rapid charger | 17.99 |
| **BC-110A**/BC-74 Extra wall charger | 40.99 |
| **BC-119-N01** Desk charger (adapter required) | 84.99 |

## Icom - continued

| | AES Price |
|---|---|
| **BC-133** Drop-in trickle charger | 39.99 |
| **BC-122A** AC adapter for BC-133 | 16.99 |
| **BP-194** AA alkaline battery case | 18.99 |
| **BP-195** 9.6v 700mah nicad battery | 42.99 |
| **BP-196** 9.6v 1050mah nicad battery ....† | 39.99 |
| **CP-12L** Rt angle cig charge cable w/filter | 36.99 |
| **CP-17L** Right angle cig cable for charger | 24.99 |
| **CS-T2** DOS prog software for IC-T2 | 13.99 |
| **OPC-474** Cloning cable (T2 to T2) | 18.99 |
| **OPC-478** PC RS-232C cable | 45.99 |
| **CSW-HH4** Windows prog soft w/cable; T2 | 50.99 |
| **HM-46** Slim-line speaker/mic | 45.99 |
| **HM-54** Hvy duty spkr/mic | 83.99 |
| **HM-75A** Remote control microphone | 70.99 |
| **HM-128** Earphone+microphone | 25.99 |
| **HM-131** Spkr/mic/earph jack/revolving clip | 38.99 |
| **HS-51** Headset w/VOX | 96.99 |
| **HS-94** Ear-piece style headset; use w/VS-1 | 24.99 |
| **VS-1** VOX-PTT unit for HS-94 | 42.99 |
| **LC-145** Carrying case for IC-T2 | 38.99 |
| **LCF3 Swivel** Leather case with swivel | 50.99 |
| **MB-68** Extra standard belt clip | 5.99 |
| **MB-74** Spring loaded belt clip | 12.99 |
| **MB-87** Swivel belt clip | 9.99 |
| **OPC-254L** Right angle mini DC chg cable | 14.99 |
| **SP-13** Earphone | 4.99 |
| **IC-V8** 5.5w 2m FM HT/batt/cgr/TTP | 129.99 |
| **AD-94-11** Adapter cup; BC-119-N01 | 17.99 |
| **BC-119-N01** Desk charger (adapter required) | 84.99 |
| **AD-101** Batt adapt; BP-211/BC-119-N01 | 25.99 |
| **BC-144-01/21** Desk charger with adapter | 89.99 |
| **BP-208** Battery case | 18.99 |
| **BP-209** 7.2v 1100mah 5.5w battery | 53.99 |
| **BP-210** 7.2v 1650mah 5.5w battery | 80.99 |
| **BP-211** 7.4v 1800mah lith ion battery | 91.99 |
| **BP-222** 7.2v 600mah 5.5w battery | 35.99 |
| **CP-17L** Right angle cig cable for charger | 24.99 |
| **CS-V8** Cloning software for IC-V8 | 35.99 |
| **OPC-474** Cloning cable (V8 to V8) | 18.99 |
| **OPC-478** PC RS-232C cable | 45.99 |
| **OPC-478U** PC USB cable | 60.99 |
| **HM-46L** Slim-line spkr/mic, rt angle plug | 45.99 |
| **HM-54** Hvy duty spkr/mic | 83.99 |
| **HM-75A** Remote control microphone | 70.99 |
| **HM-131L** Rt angle spkr/mic/earph jack/revolv clip | 38.99 |
| **HS-51** Headset w/VOX | 96.99 |
| **HS-94** Ear-piece style headset; use w/VS-1L | 24.99 |
| **VS-1L** Right angle VOX-PTT unit for HS-94 | 42.99 |
| **LCF3G Swivel** Leather case with swivel | 50.99 |
| **MB-68** Extra standard belt clip | 5.99 |
| **MB-74** Spring loaded belt clip | 12.99 |
| **MB-87** Swivel belt clip | 9.99 |
| **OPC-515L** Right angle DC cord for charger | 20.99 |
| **SP-13** Earphone | 4.99 |
| **UT-108** DTMF decoder unit | 35.99 |
| **IC-T22A** 5w 2m FM HT/batt/cgr/TTP | 199.99 |
| **IC-T7H** 6w 2m/440 FM HT/batt/cgr/TTP | 189.99 |
| **IC-W32A** 5w 2m/440 FM HT/batt/cgr/TTP | 259.99 |
| **AD-51** Batt pack adapt; W32A/rapid cgr | 9.99 |
| **AD-56** Batt pack adapt; T7H/T22A/rapid cgr | 18.99 |
| **BC-119-N11** Nicad/NiMH desk cgr (adapt required) | 89.99 |
| **BP-170** Battery case | 35.99 |
| **BP-172** 4.8v 950mah battery | 91.99 |
| **BP-173** 9.6v 600mah battery | 99.99 |
| **BP-180** 7.2v 600mah battery | 83.99 |
| **CP-12** Cig lighter cable w/filter | 36.99 |
| **CP-12L** Right angle cig cable w/filter | 36.99 |
| **CS-T7** DOS prog software for IC-T7H | 13.99 |
| **CSW-32** DOS prog software for IC-W32A | 13.99 |
| **OPC-474** Cloning cable W32A to W32A) | 18.99 |
| **OPC-478** PC RS-232C cable | 45.99 |

## Icom - continued

| | AES Price |
|---|---|
| **CSW-HH4** Windows prog soft/cbl; T7H/W32A | 50.99 |
| **FA-1443B** Extra 2m/440 dual band duck .Δ | 29.99 |
| **HM-46** Slim-line speaker/mic | 45.99 |
| **HM-46L** Slim-line spkr/mic, rt angle plug; T22A | 45.99 |
| **HM-54** Heavy duty spkr/mic | 83.99 |
| **HM-75A** Remote control microphone | 70.99 |
| **HM-128** Earphone+microphone | 25.99 |
| **HM-131** Spkr/mic/earph jack/revolving clip | 38.99 |
| **HS-10** Boom mic/headset | 69.99 |
| **HS-10SA** VOX unit | 69.99 |
| **HS-10SB** PTT switchbox | 69.99 |
| **HS-85** Headset w/VOX | 89.99 |
| **HS-94** Ear-pc headset; use w/VS-1 | 24.99 |
| **VS-1** VOX-PTT unit for HS-94 | 42.99 |
| **LC-125** Vinyl case; T22A w/BP170/171/172 D | 2.99 |
| **LC-126** Vinyl case; T22A w/BP173 ....Δ | 19.99 |
| **LC-128** Vinyl case; IC-W32A | 38.99 |
| **LC-136** Vinyl case; T7H w/BP170/171/172 | 38.99 |
| **LC-137** Vinyl case; T7H w/BP173/180 | 38.99 |
| **MB-30** Mobile/wall bracket | 41.99 |
| **NCP-1** Nylon chest pack | 39.99 |
| **OPC-254** Mini DC power cable | 14.99 |
| **OPC-254L** Right angle mini DC pwr cable | 14.99 |
| **SP-13** Earphone | 4.99 |
| **IC-Q7ABC** 350/300mw 2m/440 HT/batts/cgr | 119.99 |
| **AD-92SMA** SMA- BNC adapter | 16.99 |
| **BC-127A** Extra nicad charger | 20.99 |
| **HM-46** Slim-line speaker/mic | 45.99 |
| **HM-128** Earphone+microphone | 25.99 |
| **HS-85** Headset w/VOX | 89.99 |
| **SP-13** Earphone | 4.99 |
| **OPC-782** Plug adapt cbl; HM46/HS85/SP13 | 16.99 |
| **LC-146** Carrying case ....D | 22.99 |
| **LC-146A** Carrying case | 24.99 |
| **AD-87** Batt pack adapter; rapid cgr; T81A .Δ | 8.99 |
| **AD-88** PCB board; original BC-119-11 ....Δ | 29.99 |
| **BC-119-N21** Nicad/NiMH desk cgr (use adapt);T81A Δ | 99.99 |
| **BP-197** Battery case for 3 AA; IC-T81A ....Δ | 24.99 |
| **BP-198** 4.8v 700mah NiMH batt; IC-T81A .Δ | 49.99 |
| **BP-199** 6v 700mah NiMH battery; IC-T81A Δ | 69.99 |
| **BP-200L** 9.6v 760mah NiMH battery; T81A Δ | 89.99 |
| **CS-T81** Windows cloning soft; IC-T81A ....Δ | 13.99 |
| **LC-148** Carrying case; IC-T81A ....Δ | 19.99 |
| **IC-T90A** 5w 6m/2m/440 HT/batt/cgr/lith | 269.99 |
| **AD-92SMA** SMA- BNC adapter | 16.99 |
| **BC-139** Desk rapid charger | 94.99 |
| **BP-216** Battery case for 2 AA | 35.99 |
| **BP-217** 7.4v 1300mah lith ion battery | 89.99 |
| **CP-19R** Cig lighter cable w/filter | 44.99 |
| **CS-T90A** Windows cloning software; IC-T90A | 35.99 |
| **OPC-474** Cloning cable (radio to radio) | 18.99 |
| **OPC-478** PC RS-232C cable | 45.99 |
| **OPC-478U** PC USB cable | 60.99 |
| **HM-46** Slim-line speaker/mic | 45.99 |
| **HM-75A** Remote control microphone | 70.99 |
| **HM-128** Earphone+microphone | 25.99 |
| **HM-131** Spkr/mic/earph jack/revolving clip | 38.99 |
| **HS-85** Headset w/VOX | 89.99 |
| **HS-94** Ear-pc headset; use w/VS-1 | 24.99 |
| **VS-1** VOX-PTT unit for HS-94 | 42.99 |
| **LC-152A** Carrying case | 24.99 |
| **MB-83** Swivel belt clip | 9.99 |
| **SP-13** Earphone | 4.99 |

### Accessories for IC-2SAT/2SRA/24AT/W2A

| | |
|---|---|
| **AH-20** Replacement rcv ant; IC-2SRA ....Δ | $ 24.99 |
| **BP-83** 7.2v 600mah battery ....Δ | 79.99 |
| **BP-84** 7.2v 1000mah battery ....Δ | 99.99 |
| **BP-90** AA alkaline battery case ....Δ | 35.99 |
| **IC-2GXAT/HP** 7w 2m HT/batt/cgr/TTP ....D | 249.99 |
| **AD-25** Battery charger adapter ....Δ | 49.99 |
| **AD-28** Batt pack adapter for rapid charger | 18.99 |



AES
Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

## Icom - continued

AES Price

**BC-105A**/BC-77 Extra wall charger .....Δ 24.99
**BC-119-N11** Nicad/NiMH desk cgr (adapt required) 89.99
**BP-130A** Battery case .....Δ 35.99
**BP-157A** 7.2v 900mah battery ..... 85.99
**BP-174** 12v 600mah battery ..... 79.99
**HM-46** Slim-line speaker/mic ..... 45.99
**HM-46L** Slim-line spkr/mic, rt angle plug . 45.99
**HM-54** Heavy duty spkr/mic ..... 83.99
**HM-128** Earphone+microphone ..... 25.99
**HS-51** Headset w/VOX ..... 96.99
**HS-94** Ear-piece style headset; use w/VS-1 . 24.99
**VS-1** VOX-PTT unit for HS-94 ..... 42.99
**MB-30** Mobile/wall bracket ..... 41.99
**OPC-288** Mini DC power cable .....Δ 19.99
**SP-13** Earphone ..... 4.99
**AD-44** Batt adapter; rapid cgr; T21A .....Δ .29
**LC-110** Vinyl case; BP-153; ICT21A .....D .49

### ACCESSORIES

**AG-25** 2m mast mounted GaSFET preamp .... $159.99
**AG-35** 430 MHz mast mounted preamp ..... 169.99
**AG-1200** 1.2 GHz mast mt preamp ..... 159.99
**CT-17** CI-V level converter ..... 129.99
**HM-12** Scan hand microphone ..... 74.99
**MB-23** Side mount carrying handle ..... 15.99
**OPC-137** Adapter cable; older Icom Xcvr ...Δ 19.99
**PS-125** 25A switching power supply ..... 299.99
**SM-6** Electret desk microphone ..... 99.99
**SM-20** Deluxe desk microphone ..... 199.99
**SP-5** Mobile speaker ..... 49.99
**SP-7** Small external speaker ..... 94.99
**SP-10** Slim-line external speaker ..... 69.99
**SP-20** Speaker w/audio filter ..... 239.99
**SP-21** External speaker ..... 119.99

**Comic Book 1** Adventures of Zack and Max . 4.95

### CONSUMER ELECTRONICS

**A-23** 5w compact Navicom air handheld ..... $399.99
**IC-M1V** Waterproof 5w VHF marine handheld 199.99
**IC-M3A** 5w VHF marine handheld w/AA nicads 159.99
**IC-M45AW*** White 25w VHF marine Xcvr ..... 149.99
*$20 rebate from Yaesu thru 12/31/03! USA only
**IC-M402W02** White waterproof 25w VHF marine 199.99

**M-710** (21) 150w HF marine SSB .spec order 1399.99
**AT-130** HF marine auto ant tuner spec order 449.99
**M-802** 150w DSP marine SSB Xcvr spec order 1749.99

**IC-4088A** Dlx family radio service handheld . 89.99
**BP-202** Nicad battery; IC-4008A/4088A .... 17.99
**CP-18A** Cig lighter cable ..... 30.99
**HM-46** Slim-line speaker/mic ..... 45.99
**HM-75A** Remote control microphone ..... 70.99
**HM-128** Earphone+microphone ..... 25.99
**HM-131** Spkr/mic/earph jack/revolving clip 38.99
**HS-51** Headset w/VOX ..... 96.99
**HS-85** Headset w/VOX ..... 89.99
**HS-94** Ear-piece style headset; use w/VS-1L 24.99
**VS-1** VOX-PTT unit for HS-94 ..... 42.99
**IC-F21-GM** 15 ch 4w GMRS/FRS handheld ... 149.99

## IDIOM PRESS (IDI)

**K-3** Logikey CW keyer ..... $129.99
**HK-3** Hook-up kit ..... 10.99

## International Ant (IAC)

**160m** double **Bazooka** 248' antenna ..... $214.99
**160m** double **Bazooka Shorty** 168' antenna .. 229.99
**80m** double **Bazooka** 121' antenna ..... 150.99
**80m** double **Bazooka Shorty** 84' antenna ..... 159.99
**40m** double **Bazooka** 64' antenna ..... 126.99
**40m** double **Bazooka Shorty** 40' antenna ..... 129.99

**160m-S** 160m half sloper 127' antenna ..... 140.99
**80m-S** 80m half sloper 67' antenna ..... 115.99
**40m-S** 40m half sloper 33' antenna .....Δ 69.99

AES Price

## IRON HORSE (See ATOC)

## ISOTRON (ISO)

**160C** 160m 9.5' x 16" x 15" 100 KHz bandwidth ant $173.99
**80** 80m 32" x 16" x 15" 110 KHz bandwidth ant 98.99
**40** 40m 22" x 16" x 15" 250 KHz bandwidth ant 88.99
**20** 20m 21" x 8" x 4" 350 KHz bandwidth ant 78.99
**15** 15m 21" x 1.5" x 4" 450 KHz bandwidth ant 78.99
**10** 10m 16" x 1.5" x 4" 1 MHz bandwidth ant 78.99
**6** 6m 16.5" x 2" x 4" 1.25 MHz bandwidth ant 78.99

**80/40 Combo*** 80/40m 32" x 16" x 30" ant . 177.99
*Requires coaxial "T's" & jumpers - not included
**20/15/10 Combo** 20/15/20m combo ant ..... 198.99

## K-COM (KCO)

**RF-1** Modular telephone 3-30 MHz RFI filter . $ 16.99
**RF-1/Low** Modular phone .5-3 MHz RFI filter 16.99
**RF-1/2-line** 2-line modular 3-30 MHz RFI filt 22.99
**RF-1/coiled** Coiled cord modular 3-30MHz filt 22.99
**RF-2** Hard-wired telephone 3-30 MHz RFI filt 10.99
**RF-2/Low** Hard-wired phone .5-3 MHz RFI filt 10.99

## KANTRONICS (KAN)

**KPC-3 Plus/128K** Small packet TNC/128K RAM $186.99
KPC-**9612 Plus/128K** 9600 controller/128K ... 349.99
(CSS) **Pacterm 98** Software; Kantronics TNCs 79.99
**12VDC Adaptor** 300ma adaptor; KPC-3 ..... 12.99
**Host Master II+** IBM software ..... 89.99
**Superfax II** WX FAX program for IBM .....D 29.99
**KAM 98** Single port multi-mode dig controller 399.99
(CSS) **Pacterm 98** Software; Kantronics TNCs 79.99
**12VDC Adaptor** 300ma adaptor; KAM 98 ..... 12.99
**KAM XL** All mode TNC w/DSP modems ..... 399.99
(CSS) **Pacterm 98** Software; Kantronics TNCs 79.99
**12VDC Adaptor** 300ma adaptor; KAM XL ..... 12.99
**APRS adapter** cable; GPS to Kantronics TNC . 32.99

## KENWOOD (KEN)

**DRU-2** Dig recording unit; TS-950SDX .....Δ $139.99
**SP-950** Ext spkr/audio filters; TS-950SDX .....Δ 149.99

**TS-B2000** PC ctl HF/6m/2m/430 Xcvr/tuner 1549.99
Heil Goldline mic/accs from Kenwood thru 11/29/03!
**TS-2000** HF/6m/2m/430 Xcvr/ant tuner ..... 1699.99
Heil Goldline mic/accs from Kenwood thru 11/29/03!
*UT-20 1.2GHz module Kenwood install only
**TS-2000X** HF/6m/2m/430/1.2 Xcvr/tuner .... 2299.99
Heil Goldline mic/accs from Kenwood thru 11/29/03!
**KPS-15** 23A switching ps w/fan, 25A surge 149.99
**PS-53** Heavy duty 22.5A power supply ..... 249.99
**ARCP-2000** PC control soft (inc w/TS-B2000) 82.99
**DRU-3A** Digital recording unit ..... 129.99
**MB-430** Mobile mounting bracket ..... 49.99
**MC-43S** Extra 8-pin hand mic w/up-down . 59.99
**MC-57DM** Back-lit TTP hand mic ..... 79.99
**MC-60A** 8-pin amp desk mic w/up-down .. 149.99
**MC-80** 8-pin electret desk mic w/up-down 109.99
**MC-90** 2-head DSP desk microphone ..... 239.99
**PG-2Y** 13' DC cable ..... 39.99
**PG-2Z** 6.5' heavy duty DC cable ..... 37.99
**RC-2000** Remote faceplate mobile kit ..... 349.99
**SP-23** External speaker ..... 89.99
**VS-3** Voice synthesizer ..... 39.99
**TS-870S** 9-band Xcvr/Rcvr/IFDSP/tuner ..... 2299.99
**KPS-15** 23A switching ps w/fan, 25A surge 149.99
**PS-52** Heavy duty power supply ..... 269.99
**DRU-3A** Digital recording unit ..... 129.99
**MC-43S** Extra 8-pin hand mic w/up-down . 59.99
**MC-60A** 8-pin amp desk mic w/up-down .. 149.99
**MC-80** 8-pin electret desk mic w/up-down 109.99
**MC-90** 2-head DSP desk microphone ..... 239.99
**PG-2Y** 13' DC cable ..... 39.99
**PG-2Z** 6.5' heavy duty DC cable ..... 37.99

## Kenwood - continued

AES Price

**SO-2** TCXO unit ..... 179.99
**SP-31** External speaker ..... 99.99
**VS-2** Voice synthesizer .....D 69.99
**TS-570D(G)*** 9-band Xcvr/Rcv/AFDSP/tuner/mic 1089.99
*$100 rebate from Kenwood thru 11/29/03!
Heil Goldline mic/accs from Kenwood thru 11/29/03!
**TS-570S(G)*** 9-band Xcv/6m/Rcv/AFDSP/tune/mic 1259.99
*$100 rebate from Kenwood thru 11/29/03!
Heil Goldline mic/accs from Kenwood thru 11/29/03!
**KPS-15** 23A switching ps w/fan, 25A surge 149.99
**PS-53** Heavy duty 22.5A power supply ..... 249.99
**DRU-3A** Digital recording unit ..... 129.99
**MB-430** Mobile mounting bracket ..... 49.99
**MC-43S** 8-pin hand mic w/up-down ..... 59.99
**MC-60A** 8-pin amp desk mic w/up-down .. 149.99
**MC-80** 8-pin electret desk mic w/up-down 109.99
**MC-90** 2-head DSP desk microphone ..... 239.99
**PG-2Y** 13' DC cable ..... 39.99
**PG-2Z** 6.5' heavy duty DC cable ..... 37.99
**SO-2** TCXO unit ..... 179.99
**SP-23** External speaker ..... 89.99
**SP-50B** High quality external mobile spkr .. 55.99
**VS-3** Voice synthesizer ..... 39.99
**YK-88C-1** 500 Hz CW filter ..... 129.99
**YK-88CN-1** 270 Hz CW filter ..... 129.99
**YK-88SN-1** 1.8 KHz SSB filter ..... 129.99
**TS-50S** Compact HF Xcvr/SW Rcvr/mic/mt .. 649.99
**KPS-15** 23A switching ps w/fan, 25A surge 149.99
**PS-53** Heavy duty 22.5A power supply ..... 249.99
**AT-50** External HF auto tuner ..... 329.99
**PG-4M** 18' extension cable for AT-50 ..... 29.99
**MC-47** Extra multi-func 8-pin hand mic ... 59.99
**MC-60A** 8-pin amp desk mic w/up-down .. 149.99
**MC-80** 8-pin electret desk mic w/up-down 109.99
**PG-2Y** 13' DC cable ..... 39.99
**PG-2Z** 6.5' heavy duty DC cable ..... 37.99
**SO-2** TCXO unit ..... 179.99
**SP-23** External speaker ..... 89.99
**SP-50B** High quality external mobile spkr .. 55.99
**TC-50**/50Case Travel case for TS-50S/60S 89.99
**YK-107C** 500 Hz CW filter ..... 129.99
**7-pin DIN** plug ..... 4.99
**8-pin DIN** plug ..... 6.99
**13-pin DIN** plug ..... 9.99
**HS-5** Deluxe headphones ..... 79.99
**HS-6** Lightweight headphones ..... 59.99
**KPS-15** 23A switching ps w/fan, 25A surge . 149.99
**LF-30A** 1kw PEP low pass filter ..... 64.99
**MC-43S** 8-pin hand mic w/up-down switch .. 59.99
**MC-60A** 8-pin amp desk mic w/up-down ..... 149.99
**MC-80** 8-pin electret desk mic w/up-down ... 109.99
**PG-3B** 15A DC line noise filter ..... 29.99
**SP-50B** High quality external mobile speaker 55.99
**TSU-5** Prog CTCSS decoder; TS-790A .....D 59.99
**TU-7** Prog encoder; 2550/751A/TW-4100A .Δ 54.99
**TU-8** CTCSS tone unit; TS-450S/690S .....D 54.99
**YG-455C-1** 500 Hz CW filter; TS-450/690 ...D 149.99

**TM-642AD** 50w 2m/25w 220FM/backlit TTP mic 739.99
**TM-742AD** 50w 2m/35w 440 FM/backlit TTP ... 639.99
**DFK-3** 9' separate display cable kit ..... 26.99
**DFK-4** 13' remote cable kit ..... 59.99
**DFK-7** Deluxe 22' remote cable kit ..... 89.99
**MJ-88** Modular to 8-pin mic adapter ..... 30.99
**PG-2N** Extra DC cable ..... 17.99
**TSU-7** CTCSS decoder unit ..... 59.99
**SP-50B** High quality external mobile spkr .. 55.99
**UT-50S** 50w 6m unit ..... 329.99
**UT-220S** 25w 220 MHz unit ..... 329.99
**UT-440S** 35w 440 MHz unit ..... 299.99
**UT-1200** 10w 1.2 GHz unit ..... 399.99

## Kenwood - continued

| | AES Price |
|---|---|
| **TM-D700A** 50w 2m/35w 440 FM/1200/9600 | 519.99 |
| **MB-201** Extra mobile bracket | 25.99 |
| **MJ-88** Modular to 8-pin mic adapter | 30.99 |
| **PG-2N** Extra DC cable | 17.99 |
| **PG-4X** 13' extension cable kit | 69.99 |
| **PG-5A** Packet data cable | 15.99 |
| **SP-50B** High quality external mobile spkr | 55.99 |
| **VS-3** Voice synthesizer | 39.99 |
| **TM-G707A** 50w 2m/35w 440 FM/TTP mic | 269.99 |
| **TM-V7A** 50w 2m/35w 440 FM Xcvr/TTP mic | 399.99 |
| **DFK-3C** 9' separate display cable kit | 44.99 |
| **DFK-4C** 13' remote cable kit | 64.99 |
| **DFK-7C** Deluxe 23' remote cable kit | 99.99 |
| **MB-201** Extra mobile bracket | 25.99 |
| **MJ-88** Modular to 8-pin mic adapter | 30.99 |
| **PG-2N** Extra DC cable | 17.99 |
| **PG-4S** PC interface cable | 32.99 |
| **PG-5A** Packet data cable | 15.99 |
| **SP-50B** High quality external mobile spkr | 55.99 |
| **VS-3** Voice synthesizer | 39.99 |
| **TM-331A** 25w 220 FM Xcvr w/TTP mic | 499.99 |
| **KQT-8/TSU-6** Prog CTCSS decoder | 49.99 |
| **MB-201** Extra mobile bracket | 25.99 |
| **PG-2N** Extra DC cable | 17.99 |
| **SP-50B** High quality external mobile spkr | 55.99 |
| **TM-541A** 10w 1.2 GHz FM Xcvr/TTP/encoder | 449.99 |
| **KQT-8/TSU-6** Prog CTCSS decoder | 49.99 |
| **MB-201** Extra mobile bracket | 25.99 |
| **PG-2N** Extra DC cable | 17.99 |
| **SP-50B** High quality external mobile spkr | 55.99 |
| **TM-261A** 50w 2m FM Xcvr w/TTP mic | 149.99 |
| **TM-461A** 35w 440 FM Xcvr w/TTP mic | 439.99 |
| **MB-201** Extra mobile bracket | 25.99 |
| **MJ-88** Modular to 8-pin mic adapter | 30.99 |
| **PG-2N** Extra DC cable | 17.99 |
| **SP-50B** High quality external mobile spkr | 55.99 |
| **TSU-8** CTCSS decoder | 59.99 |
| **MC-45DM** Multi-function modular TTP mic .D | 19.99 |
| **MC-57DM** Back-lit TTP mic;241/331/441/541 | 79.99 |
| **MC-58DM** Back-lit TTP mic;251/733/742/255/V7A | 79.99 |
| **ME-1** Mem expansion; TH-28A/78A/TM-251A D | 2.99 |
| **TH-22ATH** 5w 2m FM HT/batt/cgr/TTP .....Δ | 199.99 |
| **BT-9** 4-AA battery holder .....Δ | 29.99 |
| **EMC-3** Lapel clip mic/ear piece | 29.99 |
| **HMC-3** VOX/boom mic headset | 59.99 |
| **KSC-8A** Drop-in cgr; 25/26/75/77/22/42/79 Δ | 26.99 |
| **KSC-14** 2-pack rapid charger .....Δ | 59.99 |
| **PB-33** 6v 1200mah battery .....Δ | 89.99 |
| **PB-34** 9.6v 600mah 5w battery .....Δ | 89.99 |
| **PG-2W** DC cable w/fuse | 17.99 |
| **PG-3J** Cig lighter cord w/filter | 36.99 |
| **SMC-32** Mini water resist rt angle spkr/mic | 52.99 |
| **SMC-33** Speaker/mic w/remote control | 65.99 |
| **SMC-34** Spkr/mic w/vol cont/function keys | 39.99 |
| **TSU-8** CTCSS decoder; TH-22/42AT | 59.99 |
| **WR-2** Water resistant bag; TH-22/42AT | 29.99 |
| **TH-K2AT** 5w 2m FM HT/batt/cgr/TTP | 159.99 |
| **BT-14** 6-AA battery holder | 19.99 |
| **EMC-3** Lapel clip mic/ear piece | 29.99 |
| **HMC-3** VOX/boom mic headset | 59.99 |
| **KHS-21** Boom mic headset | 39.99 |
| **KSC-24** Rapid charger | 46.99 |
| **PB-43N** 7.2v 1100mah NiMH battery | 44.99 |
| **PG-2W** DC cable w/fuse | 17.99 |
| **PG-3J** Cig lighter cord w/filter | 36.99 |
| **PG-4Y** Programming cable | 32.99 |
| **SC-54** Soft case | 16.99 |
| **SMC-32** Mini water resist rt angle spkr/mic | 52.99 |
| **SMC-33** Speaker/mic w/remote control | 65.99 |
| **SMC-34** Spkr/mic w/vol cont/function keys | 39.99 |
| **WR-2** Water resistant bag; TH-22/42AT | 29.99 |

## Kenwood - continued

| | AES Price |
|---|---|
| **TH-G71A** 5w 2m/440 FM HT/batt/cgr/TTP | 229.99 |
| **TH-D7A(G)** 5w 2m/440 FM HT/1200/9600 TNC | 359.99 |
| **BC-19** Rapid charger | 64.99 |
| **BT-11** 4-AA battery holder | 17.99 |
| **EMC-3** Lapel clip mic/ear piece | 29.99 |
| **HMC-3** VOX/boom mic headset | 59.99 |
| **J29-0631-13** Belt clip for batt; D7A/G71A | 4.99 |
| **PB-39** 9.6v 600mah 5w battery | 57.99 |
| **PG-2W** DC cable w/fuse | 17.99 |
| **PG-3J** Cig lighter cord w/filter | 36.99 |
| **PG-4P** Computer control cable | 32.99 |
| **PG-4V** VC-H1 cable for TH-D7A(G) .....Δ | 49.99 |
| **PG-4W** PC software/cable; TH-D7A(G) | 55.99 |
| **SC-45** Soft case for TH-G71A/PB-38/39 | 15.99 |
| **SC-47B** Black soft case for TH-D7A(G) | 15.99 |
| **SC-470R** Orange soft case for TH-D7A(G) | 15.99 |
| **SMC-32** Mini water resist rt angle spkr/mic | 52.99 |
| **SMC-33** Speaker/mic w/remote control | 65.99 |
| **SMC-34** Spkr/mic w/vol cont/function keys | 39.99 |
| **WR-2** Water resistant bag | 29.99 |
| **TH-F6A** 5w 2m/220/440 FM HT/lith ion batt | 329.99 |
| **BT-13** AA battery case | 25.99 |
| **EMC-3** Lapel clip mic/ear piece | 29.99 |
| **HMC-3** VOX/boom mic headset | 59.99 |
| **KHS-21** Boom mic headset | 39.99 |
| **PB-42L** Extra 7.4v 1550mah lithium ion batt | 79.99 |
| **PG-2W** DC cable w/fuse | 17.99 |
| **PG-3J** Cig lighter cord w/filter | 36.99 |
| **PG-4P** Computer control cable | 32.99 |
| **SC-51** Soft case w/swivel belt clip | 16.99 |
| **SMC-32** Mini water resist rt angle spkr/mic | 52.99 |
| **SMC-33** Speaker/mic w/remote control | 65.99 |
| **SMC-34** Spkr/mic w/vol cont/function keys | 39.99 |
| **WR-2** Water resistant bag | 29.99 |
| **E59-0407-08** 16-pin DIN plug only; VCH-1 Δ | 19.99 |
| **KCT-24S** VCH-1 to PC software/cable .....Δ | 39.99 |
| **SC-46P** Protective case for VCH-1 .....D | 14.99 |

### CONSUMER ELECTRONICS

| | |
|---|---|
| **KTC-H2A1*** Sirius portable satellite radio tuner | $ 99.99 |
| *Subscription required | |
| **KCA-FM** FM modulator for wireless installation | 39.99 |
| **KPA-H2C** Car docking kit w/magnetic ant | 69.99 |
| **KPA-H2H** Home docking kit w/desktop ant | 69.99 |
| **TKM-707** 150w HF marine SSB Xcvr spec order | 1249.99 |
| **KAT-1** HF marine auto ant tuner ...spec order | 569.99 |
| **UBZ-LH14BK** Deluxe FRS black handheld .....D | 69.99 |
| **EMC-3** Label clip mic/ear piece | 29.99 |
| **HMC-3** VOX/boom mic headset | 59.99 |
| **SMC-34** Spkr/mic/vol cont/function keys | 39.99 |
| **UBC-3** Nicad desk charger .....D | 14.99 |
| **UPB-2** Nicad battery pack .....D | 24.99 |
| **USC-5B** Black nylon case .....D | 15.99 |

## KESTER (KES)

| | |
|---|---|
| **82-5000-0004** .5 oz 60/40 solder, .040 dia | $ 1.99 |

## KLEINHUIS (KLE)

| | |
|---|---|
| **1309** Isolated grounding bar | $ 14.99 |

## KOSS (KOS)

| | |
|---|---|
| **KTX/8** Collapsible stereophone w/vol control | $ 14.99 |
| **QZ/5** Passive noise reduction stereophone | 49.99 |
| **QZ/50** Active noise reduction stereophone | 49.99 |
| **QZ/99** Noise reduction stereoph w/mono sw | 59.99 |
| **QZ/2000** Active noise reduction stereophone | 169.99 |
| **Y-88** Dual stereophone Y-adapter | 4.99 |

## KURANISHI (KUR)

| | |
|---|---|
| **BR-200** 1.7-180MHz SWR/antenna analyzer | $369.99 |

## LDG (LDG)

| | |
|---|---|
| **AT-11MP** 160-10m auto antenna tuner | $219.99 |
| **MP-Head** MP remote head .....D | 29.99 |

## LDG - continued

| | AES Price |
|---|---|
| **MP-AL-Cable** MP Alinco interface cable ..D | 10.99 |
| **MP-IC-Cable** MP Icom interface cable ....D | 10.99 |
| **AC-1** Power & control interface | 8.99 |
| **AL-IC1** Alinco 10' interface cable | 20.99 |
| **Icom-IC1** Icom 10' interface cable | 20.99 |
| **Icom-IC2** Icom 8" interface cable | 8.99 |
| **K-OTT** Kenwood one-touch tune interface | 59.99 |
| **RBA-1** Remote 4:1 balun; long/random/end fed | 30.99 |
| **AT-1000** 1000w PEP HF/100w 6m auto tuner | 549.99 |
| **RC-1000** Remote control for AT-1000 | 99.99 |
| **AT-897** Bolt-on auto tuner for Yaesu FT-897 | 199.99 |
| **RBA-1** Remote 4:1 balun; long/random/end fed | 30.99 |
| **MAC-600** Motorized antenna controller | 139.99 |
| **AC-1** Power & control interface | 8.99 |
| **AL-IC1** Alinco 10' interface cable | 20.99 |
| **Icom-IC1** Icom 10' interface cable | 20.99 |
| **Icom-IC2** Icom 8" interface cable | 8.99 |
| **K-OTT** Kenwood one-touch tune interface | 59.99 |
| **RT-11** 160-6m remote auto antenna tuner | 199.99 |
| **RT-Remote** RT remote head | 39.99 |
| **AC-1** Power & control interface | 8.99 |
| **AL-IC1** Alinco 10' interface cable | 20.99 |
| **Icom-IC1** Icom 10' interface cable | 20.99 |
| **Icom-IC2** Icom 8" interface cable | 8.99 |
| **K-OTT** Kenwood one-touch tune interface | 59.99 |
| **RBA-1** Remote 4:1 balun; long/random/end fed | 30.99 |
| **Z-11** 30w QRP auto antenna tuner | 169.99 |
| **RBA-1** Remote 4:1 balun; long/random/end fed | 30.99 |
| **Z-100** .1 to 125w auto antenna tuner | 149.99 |
| **AC-1** Power & control interface | 8.99 |
| **AL-IC1** Alinco 10' interface cable | 20.99 |
| **Icom-IC1** Icom 10' interface cable | 20.99 |
| **Icom-IC2** Icom 8" interface cable | 8.99 |
| **K-OTT** Kenwood one-touch tune interface | 59.99 |
| **RBA-1** Remote 4:1 balun; long/random/end fed | 30.99 |

## LA CROSSE (LAC)

| | |
|---|---|
| **WS-2010** Professional wireless weather stn | $389.99 |
| **WS-2010-13** PC interface/software | 129.99 |
| **WS-2310** Wireless/wired weather center | 249.99 |
| **WS-7013U** Wireless temperature station | 24.99 |
| **WS-7038UF** Wireless rain gauge | 59.99 |
| **WS-7075UF** Wireless forecast station | 59.99 |
| **WS-8015U** Dlx sun/moon wireless WX stn ..D | 159.99 |
| **WS-8017U-Oak** Atomic clock w/in/out temp | 39.99 |
| **WS-9016U** Sun/moon wireless weather stn | 79.99 |
| **WT-5431** Projection alarm w/remote temp | 49.99 |
| **TX-3U** Extra temp sensor w/LCD; all WX units | 15.99 |
| **3362U** Power cost controller | 29.99 |
| **IR-101** Infra-red thermometer | 49.99 |
| **RS-204U** Remote control outlet | 29.99 |

## LAKEVIEW (LAK)

| | |
|---|---|
| **9175** 75m 7' Hamstick antenna | $ 24.99 |
| **9140** 40m 7' Hamstick antenna | 24.99 |
| **9130** 30m 7' Hamstick antenna | 24.99 |
| **9120** 20m 7' Hamstick antenna | 24.99 |
| **9117** 17m 7' Hamstick antenna | 24.99 |
| **9115** 15m 7' Hamstick antenna | 24.99 |
| **9112** 12m 7' Hamstick antenna | 24.99 |
| **9110** 10m 7' Hamstick antenna | 24.99 |
| **9106** 6m 4.5' Hamstick antenna | 24.99 |
| **901** Dipole mount for 2 Hamsticks | 14.99 |
| **IM-1** Inducti-match for 75-12m mobile ant | 17.99 |
| **TM-1** License plate mount, ⅜-24 | 44.99 |
| **TM-1-Plus** License plate mount, SO-239 | 44.99 |

## LARSEN (LAR)

### 27-31 MHz ANTENNA

| | |
|---|---|
| **NMO-27B** 10m black ant only (no mount) | $ 36.99 |
| **NMO-27C** 10m ant only (no mount) | 33.99 |


Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

## Larsen - continued — AES Price

### 47-54 MHz ANTENNA

| | | |
|---|---|---|
| **NMO-50B** | 6m black ant only (no mount) | $ 36.99 |
| **NMO-50C** | 6m ant only (no mount) | 33.99 |

### 144-174 MHz ANTENNAS

| | | |
|---|---|---|
| **NMO-150B** | 2m black ant only (no mt), 3 db | $ 33.99 |
| **NMO-150C** | 2m ant only (no mount), 3 db | 30.99 |

### 220-265 MHz ANTENNAS

| | | |
|---|---|---|
| **NMO-220B** | 220 black ant only (no mt), 3 db | $ 36.99 |
| **NMO-220C** | 220 ant only (no mount), 3 db | 30.99 |

### 440-460 MHz ANTENNAS

| | | |
|---|---|---|
| **NMO-440B** | 440 black ant only (no mt), 4.5db | $ 35.99 |
| **NMO-440C** | 440 ant only (no mount), 4.5 db | 29.99 |
| **MM-2/70PL** | 2m/440 ¼ wave/2db mag mt ant | 50.99 |
| **NMO-2/70B** | 2m/440 blk ant only (no mt), 2/4db | 65.99 |
| **NMO-2/70C** | 2m/440 ant (no mount), 2/4db | 60.99 |
| **NMO-2/70-SH** | 2m/440 ant (no mt), ¼ wv/2db | 40.99 |
| **NMOQ-Spec** | 136-512 MHz ¼ wave ant (no mt) | 13.99 |
| **NMOQ-Spec-B** | 136-512 black ¼ wv ant (no mt) | 15.99 |
| **NMOQ-Spec-K** | 136-512MHz ¼ wv ¾" hole ant | 28.99 |
| **NMOQ-2/70-B** | 2m/440 ¼ wv cell look ant (no mt) | 36.99 |
| **GPS-NM002** | GPS NMO mount ant (no mt) | 79.99 |
| **NMO-150450800** | 3-band scanner ant (no mt) | 29.99 |

### ON GLASS ANTENNAS

| | | |
|---|---|---|
| **KG-144-UD-PL** | 2m 3 db on glass antenna | $ 83.99 |
| **KG-220-UD-PL** | 220 3 db on glass antenna | 83.99 |
| **KG-440-UD-PL** | 440 2.4 db on glass antenna | 71.99 |
| **KG-2/70-CX-PL** | 2m/440 2.5/4.5db on glass | 116.99 |
| **KG-Reinstall** | Reinstall kit for KG-ants | 8.99 |

### KULDUCKIES - For Hand-helds

| | | |
|---|---|---|
| **KD4-146** | 2m BNC Kulduckie D | $ 20.99 |
| **KD4-2/70** | 2m/440 BNC Kulduckie | 36.99 |
| **KD4-222** | 220 BNC Kulduckie D | 19.99 |
| **KD14-445** | 440 ¼ wave BNC Kulduckie | 19.99 |
| **KD4-146-HQ** | 2m part helical, part ¼ wave BNC | 25.99 |
| **KD14-2M-HW** | 2m ½ wave BNC antenna | 38.99 |
| **KD14-440-HW** | 440 ½ wave BNC antenna ...Δ | 29.99 |

### ACCESSORIES

| | | |
|---|---|---|
| **BSA-K** | Base mtg kit; NMO/UHF mt mobile ant | $ 53.99 |
| **NMO-B38** | NMO mt hdw/A-7 NLA adapter | 13.99 |
| **NMO-CAP-B** | Black rain cap for NMO mount | 4.99 |
| **NMO-K** | ¾" hole mt w/coax for NMO ant | 15.99 |
| **NMO-MM** | Magnet mt, coax for NMO ant | 32.99 |
| **NMO-TLP** | Low profile tnk lid mt, coax; NMO ant | 29.99 |
| **PO-K** | Roof mt, coax for SO-239 ant | 30.99 |
| **PO-MM** | Magnet mt, coax for SO-239 ant | 36.99 |
| **PO-TLM** | Trunk lip mt, coax for SO-239 ant .D | 14.99 |
| **RG-SS** | Extra super seal NMO gaskets (3) | 5.99 |
| **SPRING** | Shock spring | 10.99 |
| **TMB-34** | Trunk mtg bkt for NMO antenna | 5.99 |
| **TMB-34B** | Black trunk mtg bkt for NMO ant | 7.99 |
| **W-2/70B** | 2m/440 black replacement whip | 27.99 |
| **W-490** | 49" replacement whip | 9.99 |
| **W-490B** | Black 49" replacement whip | 12.99 |

## LIGHTWAVE (LIG)

| | | |
|---|---|---|
| **LW-HT** | 4 LED/3 AA-cell illuminator head torch | $ 39.99 |
| **LW-PB** | 1 LED/2 lith-cell pocket flashlight | 19.99 |
| **LW-2000** | 4 LED/3 AA-cell flashlight | 29.99 |
| **LW-3000** | 7 LED/3 C-cell flashlight | 49.99 |
| **LW-4000** | 10 LED/3 D-cell flashlight | 59.99 |

## LOGSAT (LOG)

| | | |
|---|---|---|
| **Logsat Pro**fessional | Satellite tracking CDROM | $ 69.99 |

## LOSI (LOS)

| | | |
|---|---|---|
| **A0014** | XXX-4 4WD electric Competition buggy kit | $269.99 |
| **A0090** | XXX-T Sport RTR w/XR2i electric car | 269.99 |

## M² (MSQ)

| | | |
|---|---|---|
| **KT-36XA** | 20/15/10m 6el 32' boom beam | 1299.99 |

## M² - continued — AES Price

| | | |
|---|---|---|
| **40M-1LDX** | 6.9-10 MHz rotatable dipole | 499.99 |
| **20M-4DX** | 20m 7.4db 4el 34' boom beam | 599.99 |
| **17M-3DX** | 17m 6.3db 3el 18' boom beam | 449.99 |
| **17M-5DX** | 17m 8.6db 5el 36' boom beam | 589.99 |
| **15M-4DX** | 15m 8.5db 4el 33' 8" boom beam | 499.99 |
| **12M-4DX** | 12m 8.6db 4el 27' boom beam | 449.99 |
| **10M-4DX** | 10m 8.7db 4el 23' boom beam | 449.99 |
| **6M-3** | 6m 50-50.6 or 51-54 6.4db 3el 6'9" bm beam | 149.99 |
| **6M-5X** | 6m 50-50.5 or 51-54 9.4db 5el 18' bm beam | 249.99 |
| **6M-7JHV** | 6m 50-50.4 10.9db 7el 30'8"bm beam | 299.99 |
| **6M-2WLC** | 6m 49.7-50.5 11.9db 9el 39' 6" boom T* | 499.99 |

***6M-2WLC is drop-shipped (shipped direct to you from the M² factory). On these factory drop-shipments we prefer payment in full with order, however, we will accept your credit card with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your drop-shipped merchandise. Shipment is FOB Fresno, California via truck, COD for freight charges only. Freight charges will be collected upon delivery by the carrier. Please allow sufficient time for delivery on these special order items.**

| | | |
|---|---|---|
| **6M-9KHW** | 6m 50-50.4 12.7db 9el 49' 4" bm beam | 549.99 |
| **6M-HO-LOOP** | 6m 50-50.3 4.4db horiz loop ant | 113.99 |
| **6" x 1/2"** | 3/8-24 mobile mast for loop | 10.99 |
| **16" x 1/2"** | 3/8-24 mobile mast for loop | 12.99 |
| **18" x 5/8"** | 3/8-24 mobile mast for loop | 17.99 |
| **36" x 1/2"** | 3/8-24 mobile mast for loop | 28.99 |
| **50" x 1/2"** | 3/8-24 mobile mast for loop | 31.99 |
| **MAST BKT KIT** | For 6M-HO-LOOP | 19.99 |
| **2M-4** | 2m 7.5db 4el 4' boom beam | 113.99 |
| **2M-7** | 2m 10.3db 7el 8'10" boom beam | 127.99 |
| **2M-9FM** | 2m 145-148 12db 9el 14' 6" bm beam | 149.99 |
| **2M-9SSB** | 2m 144-146 12db 9el 14' 6" bm beam | 149.99 |
| **2M-12** | 2m 12.8db 12el 19'6" boom beam | 199.99 |
| **2M-5WL** | 2m 14.8db 17el 33' boom beam | 249.99 |
| **2M-18XXX** | 2m 144-146 15.3db 18el 36'3" bm beam | 289.99 |
| **2M-8WLHD** | 2m 144-144.7 17db 21el 55' bm beam | 599.99 |
| **2M-CP14** | 2m 10.3db 7h/7v 10'6"bm circ beam | 215.99 |
| **2M-CP22** | 2m 12.5db 11h/11v 18'6"bm circ beam | 289.99 |
| **PS-2M** | 2m polarity switch; circ pol beam | 169.99 |
| **FG X-Boom Kit** | For circular antennas, etc. | 159.99 |
| **2M-XP20** | 144-146 13.3db 10h/10v cross polar Δ | 179.99 |
| **2M-XP28** | 144-146 15.1db 14h/14v cross polar Δ | 249.99 |
| **2M5-440XP** | 2m/440 9/12db 5/10el 5'8" bm beam | 199.99 |
| **2M-HO-LOOP** | 2m 144-144.5 4.86db horiz loop | 49.99 |
| **6" x 1/2"** | 3/8-24 mobile mast for loop | 10.99 |
| **16" x 1/2"** | 3/8-24 mobile mast for loop | 12.99 |
| **18" x 5/8"** | 3/8-24 mobile mast for loop | 17.99 |
| **36" x 1/2"** | 3/8-24 mobile mast for loop | 28.99 |
| **50" x 1/2"** | 3/8-24 mobile mast for loop | 31.99 |
| **Big-Foot** | 4x-mag mt; 2M-HO-LOOP stack/etc | 119.99 |
| **MAG-KIT** | Magnet mt kit; single 2m-HO-LOOP | 24.99 |
| **MAST BKT KIT** | For 2M-HO-LOOP | 19.99 |
| **STACK-KIT** | Stack kit for 2 2m-HO-LOOP's | 74.99 |
| **TOP BKT KIT** | For 2M-HO-LOOP | 24.99 |
| **EB-144/RK-2M** | 2m Eggbeater w/reflector kit | 199.99 |
| **222-7EZ** | 220 9.8db 7el 5' 8" boom beam | 109.99 |
| **222-10EZ** | 220 12db 10el 9' 9" boom beam | 125.99 |
| **222-5WL** | 220 15.2db 15el 23'3" boom beam | 199.99 |
| **222-7WL** | 220 16.4db 23el 32'5" boom beam | 249.99 |
| **222-XP30** | 220 15.2db 15h/15v cross polar Δ | 199.99 |
| **222-HO-LOOP** | 220-224 4.75db horiz loop ant | 49.99 |
| **6" x 1/2"** | 3/8-24 mobile mast for loop | 10.99 |
| **16" x 1/2"** | 3/8-24 mobile mast for loop | 12.99 |
| **18" x 5/8"** | 3/8-24 mobile mast for loop | 17.99 |
| **36" x 1/2"** | 3/8-24 mobile mast for loop | 28.99 |
| **50" x 1/2"** | 3/8-24 mobile mast for loop | 31.99 |
| **MAG-KIT** | Magnet mt kit; single 222-HO-LOOP | 24.99 |
| **440-470-5W** | 440-470 7.8db 5el 2'2"bm beam | 149.99 |
| **420-50-11** | 432 11.3db 11el 5' bm rear mt beam | 109.99 |
| **440-18** | 432 14.5db 18el 11'4" boom beam | 149.99 |
| **440-21ATV** | 432 15.9db 21el 14'6" bm ATV beam | 169.99 |

## M² - continued — AES Price

| | | |
|---|---|---|
| **436-CP30** | 432 14.5db 15h/15v 9'9"bm circ beam | 289.99 |
| **436-CP42UG** | 432 16.8db 21h/21v 18'10"bm circ | 329.99 |
| **PS-70CM** | 432 polarity switch; circ pol beam | 169.99 |
| **FG X-Boom Kit** | For circular antennas, etc. | 159.99 |
| **432-9WL** | 432 17.3db 28el 21' boom beam | 199.99 |
| **432-13WLA** | 432 18.6db 38el 30'8" bm beam | 269.99 |
| **432-HO-LOOP** | 430-436 5db horiz loop ant | 49.99 |
| **6" x 1/2"** | 3/8-24 mobile mast for loop | 10.99 |
| **16" x 1/2"** | 3/8-24 mobile mast for loop | 12.99 |
| **18" x 5/8"** | 3/8-24 mobile mast for loop | 17.99 |
| **36" x 1/2"** | 3/8-24 mobile mast for loop | 28.99 |
| **50" x 1/2"** | 3/8-24 mobile mast for loop | 31.99 |
| **Big-Foot** | 4x-mag mt; 432-HO-LOOP stack/etc | 119.99 |
| **MAG-KIT** | Mag mt kit; single 432-HO-LOOP | 24.99 |
| **STACK-KIT-70CM** | Stack kit; 2 432-HO-LOOP's | 74.99 |
| **TOP BKT KIT** | For 432-HO-LOOP | 24.99 |
| **EB-432** | 432 Eggbeater omni/hor/rhc overhead D | 119.99 |
| **EB-432/RK-70CM** | 432 Eggbeater w/reflector kit | 189.99 |
| **902-6W** | 900MHz 10db 6el 2' boom beam | 69.99 |
| **902-10EZ** | 900MHz 12.6db 10el 3'5"bm beam | 99.99 |
| **902-18EZ** | 900MHz 14.8db 18el 5'4"bm beam | 159.99 |
| **23CM-22EZA** | 1.2GHz 16db 22el 5'2" bm beam | 149.99 |
| **23CM-35** | 1.2GHz 18.4db 35el 10' bm beam | 189.99 |
| **2M-2-Port-PD** | 2m 2-port type N power divider | 69.99 |
| **70CM-2-Port-PD** | 432 2-port N power divider | 69.99 |
| **23CM-2-Port-PD** | 1.2GHz 2-port N power divider | 69.99 |
| **FAST MAST** | 20' extended port alum mast ...D | 129.99 |
| **OR-2800PDC** | 35 sq ft azimuth rotor/control/8-wire | 1399.99 |
| **RC-2800PP** | Control box; prop pitch .spec order | 549.99 |

## MFJ ANTENNA TUNERS (MFJ)

| | | |
|---|---|---|
| **989C** | Dlx 1.2kw PEP w/roller inductor | $319.99 |
| **986** | 1.2kw PEP w/roller inductor | 299.99 |
| **962D** | 1.5kw PEP/meter/switch/balun/roller ind | 249.99 |
| **969** | HF & 6m 300w roller inductor tuner | 189.99 |
| **949E** | 300w/PEP meter/dummy/switch/balun | 139.99 |
| **948** | 300w/meter/switch/balun | 119.99 |
| **941E** | 300w tuner w/meter, switch, balun | 109.99 |
| **945E** | 300w tuner w/meter plus 6m | 99.99 |
| **20** | Mobile bracket for 945E | 4.99 |
| **901B** | Versa Tuner 200w ant tuner | 79.99 |
| **910** | 80-10m mobile antenna matcher | 19.99 |
| **1601D** | 200w random wire tuner | 49.99 |
| **902** | 80-10m 150w travel tuner | 69.99 |
| **903** | 6m antenna tuner | 49.99 |
| **906** | 6m antenna tuner w/wattmeter | 79.99 |
| **914** | Auto tuner extender | 59.99 |
| **921** | 2m/220 300w PEP tuner/SWR/wattmeter | 69.99 |
| **922** | 2m/440 150w tuner/SWR/wattmeter | 79.99 |
| **924** | 440 MHz 300w PEP tuner/SWR/wattmeter | 69.99 |
| **934** | 300w tuner w/artificial ground | 169.99 |

### MEMORY KEYERS

| | | |
|---|---|---|
| **451** | Dedicated CW keyboard w/memory | $ 99.99 |
| **452** | CW keyboard/keyer w/disp/keyboard | 129.99 |
| **452X** | CW keyboard/keyer w/disp, no keyboard | 99.99 |
| **498** | Dlx CW keyboard/keyer w/disp/keyboard | 179.99 |
| **490** | 492 keyer/Bencher paddle combo | 189.99 |
| **490X** | 492 keyer for use w/Bencher or 564 | 99.99 |
| **564** | Deluxe iambic paddle for 490X | 49.99 |
| **492** | 192 char menu driven memory keyer | 89.99 |
| **495** | Millennium memory keyer | 149.99 |
| **5409** | 9-pin serial port 6' cable for 493 ....Δ | 4.99 |
| **5425** | 25-pin serial port 6' cable for 493 ....Δ | 4.99 |

### ELECTRONIC KEYERS

| | | |
|---|---|---|
| **407D** | Deluxe electronic keyer | $ 69.99 |
| **401D** | Econo keyer | 49.99 |

### KEYER/PADDLES

| | | |
|---|---|---|
| **422D** | Keyer/Bencher paddle combination | $159.99 |
| **422DX** | Keyer only | 79.99 |
| **441** | SlimLine econo keyer | 59.99 |

## MFJ - continued

| | | AES Price |
|---|---|---|
| 442 | SlimLine keyer/Bencher paddle combo | 149.99 |
| 442X | SlimLine keyer only Δ | 59.99 |
| 447 | SlimLine deluxe keyer | 79.99 |
| 564 | Deluxe iambic chrome paddle | 49.99 |
| 564B | Deluxe iambic black paddle | 49.99 |

### COMPUTER INTERFACES

| | | |
|---|---|---|
| 1224 | Interface | $ 99.99 |
| 1265 | Disk software for VIC/C64; 1224 D | .99 |
| 1285 | Software for IBM; 1224 | 19.99 |
| 1270C | Packet radio TNC2 | 119.99 |
| 1278B | Multi-mode controller w/Pactor | 279.99 |
| 1278B/DSP | Controller w/Pactor & DSP | 359.99 |
| 48 | 1278 upgrade | 24.99 |
| 52 | TNC2 deviation meter board Δ | 19.99 |
| 780 | DSP data filter for 1278B Δ | 59.99 |
| 1282 | C64 starter pack D | .99 |
| 1282BD | Multicom 64 disk only D | .69 |
| 1284D | 1284 disk only D | .49 |
| 1284M | 3½" IBM starter pack | 24.99 |
| 1284W | MFJCOM for Windows | 29.99 |
| 1287B | Mac multicom starter pack Δ | 4.99 |
| 1287D | 1287 disk only D | .19 |
| 1288 | Packet terminal program D | .69 |
| 1289D | 1289 disks only D | 1.99 |
| 1289H | Multicom host software for IBM | 69.99 |
| 1289M | 3½" multicom software for IBM | 59.99 |
| 1289MD | 1289M disks only Δ | 14.99 |
| 1289W | Multicom for Windows with cable | 59.99 |
| 1289WD | Multicom for Windows, less cable | 49.99 |
| 1214PC | Multimode interface for IBM | 139.99 |
| 781 | DSP filter for any TNC or controller Δ | 89.99 |
| 1272B | TNC to microphone interface | 39.99 |
| 1272BYH | TNC/mic switch; KAM HF | 39.99 |
| 1272BYV | TNC/mic switch; KAM VHF | 39.99 |
| 1272M | TNC/mic RJ-45 switch; MFJ/PK-900 | 39.99 |
| 1272MYV | TNC/mic RJ-45 sw; KAM VHF; KPC3 | 39.99 |

### SSB/CW FILTERS

| | | |
|---|---|---|
| 722 | SSB/CW notch filter Δ | $ 49.99 |
| 751B | Super tunable CW audio filter | 69.99 |
| 752C | Dual tunable SSB/CW filter | 89.99 |
| 784B | Deluxe tuneable DSP filter | 229.99 |
| 5184 | Cable pack for 784B | 7.99 |

### PHONE PATCH

| | | |
|---|---|---|
| 624D | Phone patch w/audio VU meter | $119.99 |

### DUMMY LOADS

| | | |
|---|---|---|
| 250 | 2kw PEP dummy load w/oil | $ 59.99 |
| 250X | 2kw PEP dummy load, less oil | 39.99 |
| 21 | 1 gal industrial xfmr oil for wet dummy | 24.99 |
| 260C | 300w 0-650 MHz dry dummy load | 34.99 |
| 260CN | 300w 0-650 MHz type N dry dummy | 39.99 |
| 264 | 1.5kw 0-650 MHz dry dummy load | 69.99 |
| 264N | 1.5kw 0-650 MHz type N dry dummy | 74.99 |
| 267 | 1.8-54 100w dry dummy load/SWR/wattmeter | 139.99 |

### SWR/WATTMETERS

| | | |
|---|---|---|
| 812B | 144-220 MHz SWR/FS/wattmeter | $ 34.99 |
| 815B | 160-6m cross-needle SWR/wattmeter | 79.99 |
| 816 | 1.8-30 MHz toroidal SWR/wattmeter | 34.99 |
| 817 | 2m/440 cross needle meter | 89.99 |
| 841 | 2m 5w in-line HT wattmeter/SWR | 39.99 |
| 844 | Compact 2m/440 SWR/wattmeter | 69.99 |
| 860 | 1.8-60 MHz cross-needle meter | 44.99 |
| 862 | 2m/220/440 cross-needle meter | 54.99 |
| 864 | 1.8-60MHz/2m/440 cross needle meter | 84.99 |
| 870 | 1.6-60MHz Grandmaster SWR/wattmeter | 124.99 |
| 872 | 1.8-200MHz Grandmaster SWR/wattmeter | 94.99 |
| 873 | 125-525MHz Grandmaster SWR/wattmeter | 104.99 |
| 874 | 1.8-525MHz Grandmaster SWR/wattmeter | 159.99 |

### SHORTWAVE ACCESSORIES

| | | |
|---|---|---|
| 306 | Car radio SWL converter | $ 89.99 |
| 956 | LW/MW/SW preselector/tuner | 49.99 |

## MFJ - continued

| | | AES Price |
|---|---|---|
| 959C | SW receiver ant tuner w/preamp | 99.99 |
| 1020C | .3-30 MHz indoor active receive ant | 79.99 |
| 1022 | 300KHz-200MHz active rcv antenna | 49.99 |
| 1024 | .05-30 MHz outdoor active rcv ant | 129.99 |
| 1040B | Deluxe receiver preselector | 99.99 |
| 1045C | Receiver preselector | 69.99 |

### BOOKS

| | | |
|---|---|---|
| 30 | Golden Classics book | $ 9.95 |
| 32 | Packet Made Easy book | 9.95 |
| 33 | Mobile Handbook book | 12.95 |
| 36 | Shortwave Listeners Guide; Apts/Condos | 9.95 |
| 37 | Ham Communications Circuit Files book | 9.95 |
| 38 | Easy-up Antennas book | 16.95 |
| 3036 | The Packet Radio Operators book | 12.95 |
| 3101 | Fox Hunt Adventure book | 7.95 |
| 3211 | Technician license guide | 9.95 |
| 3213 | General license guide | 9.95 |
| 3301 | Troubleshooting Antenna & Feedlines book | 12.95 |
| 3302 | 73 Dipole and Long-Wire Antennas | 12.95 |
| 3303 | 73 Vertical, Beam, and Triangle Ants | 12.95 |
| 3305 | Antennas & Transmission Lines book | 19.95 |
| 3400 | Morse Code: Breaking the Barrier | 19.95 |
| 3502 | Solid State QRP Projects | 12.95 |
| 3504 | FET Principles, Experiments & Projects | 16.95 |
| 3506 | Ferromagnetic-Core Design book | 19.95 |
| 3507 | Practical RF Design Manual | 19.95 |
| 3509 | Ladder Crystal Filters | 19.95 |

### CLOCKS

| | | |
|---|---|---|
| 105C | 24-hour quartz wall clock | $ 19.99 |
| 107B | 24-hour digital clock | 9.99 |
| 108B | 24/12-hour dual disp digital clock | 19.99 |
| 112B | Deluxe world map clock | 24.99 |
| 113 | 24/12-hr 1.8" LED clock/batt back-up | 19.99 |
| 115 | DX'er 24-hour analog world wall clock | 24.99 |
| 116DC | 12-hour 12vdc LED clock Δ | 9.99 |
| 118 | Giant 24/12 hour LCD clock | 24.99 |
| 123 | Eternity solar atomic clock | 79.99 |
| 125 | Calendar 24-hour analog wall clock | 29.99 |

### ANTENNAS

| | | |
|---|---|---|
| 343 | 1⅛" hole mount for 3/8-24 whip | $ 9.99 |
| 1402 | 2m/440 0/3db 16.5" 100w ant only | 34.99 |
| 1412 | 2m/440 3/5.5db 40" 200w ant only | 49.99 |
| 1422 | 2m/440 3.2/5.7db 41.5" 150w ant only | 49.99 |
| 1432 | 2m/440 5/7.6db 62.5" 150w ant only | 69.99 |
| 1436 | 6m/2m/440 2.15/4.5/7.2db 59" ant only | 79.99 |
| 333BM | 3.5" HiFlux NMO mag mt; not 1436 | 14.99 |
| 333BS | 3.5" HiFlux SO-239 magt mt not 1436 | 14.99 |
| 335BM | 5" HiFlux NMO mag mt; not 1436 | 19.99 |
| 335BS | 5" HiFlux SO-239 mag mt; not 1436 | 19.99 |
| 340 | Mirror/luggage pipe clamp mount | 34.99 |
| 345 | Trunk/hatchback lip mount | 34.99 |
| 1516 | 2m 15' vertical base antenna | 89.99 |
| 1621 | 40-10m 54" portable ant w/tuner | 89.99 |
| 1622 | 40-2m apartment antenna | 89.99 |
| 1624 | 40-6m mini bugcatcher antenna | 79.99 |
| 1661 | 20-6m manual screwdriver antenna | 119.99 |
| 1664 | 40-6m manual screwdriver antenna | 159.99 |
| 1710 | 2m ⅜ wave telescopic antenna | 9.99 |
| 1712 | 2m/440 telescopic antenna | 14.99 |
| 1713 | 2m/440 SuperFlex Thin Duk HT ant | 19.99 |
| 1713S | 2m/440 SuperFlex SMA Thin Duk ant | 19.99 |
| 1714 | 2m ½ wave telescopic antenna | 16.99 |
| 1715 | 2m/440 SuperFlex gain Thin Duk HT ant | 24.99 |
| 1715S | 2m/440 SuperFlex gain SMA Thin Duk | 24.99 |
| 1716 | 2m/440 duck for HT | 16.99 |
| 1716S | 2m/440 SMA duck for HT | 16.99 |
| 1717 | 2m/2.15db 440 duck for HT | 21.99 |
| 1717PL | 2m/440 foldover flexi-duck, PL-259 | 24.99 |
| 1717S | 2m/2.15db 440 SMA duck for HT | 21.99 |
| 1719 | 2m/440/1.2GHz Midget Duck | 19.99 |
| 1719S | 2m/440/1.2GHz SMA Midget Duck | 19.99 |

## MFJ - continued

| | | AES Price |
|---|---|---|
| 1720S | 6m/2m/440 SMA Duck | 29.99 |
| 1721 | 2m HT UltraLite mag mt antenna | 14.99 |
| 1722 | 2m/440 HT UltraLite mag mt antenna | 18.99 |
| 1724B | 2m/440 magnet mt antenna | 16.99 |
| 1727 | 10m magnet mt antenna | 39.99 |
| 1728B | 6m ¼ wv/2m ⅝ wv mag ant/PL259/BNC | 29.99 |
| 1729 | 2m/440 magnet mt antenna | 34.99 |
| 1730 | 2m pocket roll-up vertical antenna | 19.99 |
| 1734 | 2m/440 2.6/6.3db glass mt antenna | 39.99 |
| 1736 | 6m J-Pole travel antenna | 29.99 |
| 1738 | 2m 2.6db glass mt antenna | 29.99 |
| 94 | Remount kit for 1734/1738 | 4.99 |
| 1740 | 2m ¼ wave ground plane ant | 19.99 |
| 1750 | 2m ⅝ wave ground plane ant | 24.99 |
| 1752 | 220 ⅝ wave ground plane ant | 24.99 |
| 1754 | 2m/440 ground plane antenna | 29.99 |
| 1756 | 6m DX vertical antenna Δ | 69.99 |
| 1762 | 6m 6db 3 el 6' boom beam | 79.99 |
| 1763 | 2m 3el portable beam | 44.99 |
| 1764 | 2 & 6m dual ⅝ super gain base ant | 49.99 |
| 1768 | 2m/440 4/7 el beam antenna | 79.99 |
| 1778 | G5RV 160-10m 102' ant (needs tuner) | 39.99 |
| 1786 | Super Hi-Q 10-30 MHz loop/dlx control | 349.99 |
| 1788 | Super Hi-Q 40-15m loop/dlx controller | 389.99 |
| 1796 | 40/20/15/10/6/2m 10' vertical ant | 189.99 |
| 1798 | 80/40/30/20/17/15/12/10/6/2m 20' vert | 269.99 |
| 1899T | 80-6m telescopic antenna for FT-817 | 129.99 |
| 1910 | 33' telescoping fiberglass mast | 79.99 |

### CABLES

| | | |
|---|---|---|
| 5020 | MFJ TNC - Yae FT50R/compat | $ 15.99 |
| 5020YV | KAM VHF/KPC3 - Yae FT50R/compat | 15.99 |
| 5022 | MFJ TNC - Alinco/Standard HT cable | 15.99 |
| 5022YV | KAM VHF/KPC3 - Ali/Sta HT cable | 15.99 |
| 5024 | MFJ TNC - Ico/Yae/Ali/RS HT cable | 15.99 |
| 5024B | PK/PacComm/compat - Ico/Yae/RS | 15.99 |
| 5024YV | KAM VHF/KPC3 - Ico/Yae/Ali/RS HT | 15.99 |
| 5026 | MFJ TNC - Kenwood HT cable | 15.99 |
| 5026YV | KAM VHF/KPC3 - Kenwood HT cable | 15.99 |
| 5060 | MFJ TNC - Ken/Yae acc 6-pin mini DIN | 19.99 |
| 5060YQ | KPC9612 - Ken/Yae acc 6pin mini DIN | 19.99 |
| 5060YV | KAM VHF/KPC3 - Ke/Ya acc 6pin mni DIN | 19.99 |
| 5063 | MFJ TNC - Icom HF acc 8-pin DIN | 19.99 |
| 5063YH | KAM DIN HF - Icom HF acc 8-pin DIN | 19.99 |
| 5064 | MFJ TNC - Icom VHF acc 8-pin DIN | 19.99 |
| 5064YQ | KPC9612 - Icom VHF 8-pin DIN Δ | 1.99 |
| 5064YV | KAM VHF/KPC3 - Ico VHF acc 8pin DIN Δ | 4.99 |
| 5065 | MFJ TNC - Ico IC-706 acc 13-pin DIN | 19.99 |
| 5065YH | KAM HF - Ico IC-706 acc 13-pin DIN | 19.99 |
| 5065YV | KAM VHF - Ico IC706 acc 13-pin DIN | 19.99 |
| 5066 | MFJ TNC - Kenwood HF acc 13-pin DIN | 19.99 |
| 5066YH | KAM HF - Ken HF acc 13-pin DIN | 19.99 |
| 5080 | MFJ TNC - Yaesu 8-pin cable | 15.99 |
| 5080M | MFJ TNC - Yaesu 8-pin modular | 15.99 |
| 5080MYV | KAM VHF/KPC3 - Yae 2500M/7400H | 15.99 |
| 5080YH | KAM HF port - Yaesu 8-pin cable | 15.99 |
| 5080YV | KAM VHF/KPC3 - Yaesu 8-pin cable | 15.99 |
| 5082 | Open end - 8-pin mic cable | 9.99 |
| 5084 | MFJ TNC - Icom 8-pin cable | 15.99 |
| 5084M | MFJ TNC - Icom 8-pin modular | 15.99 |
| 5084MYV | KAM VHF/KPC3 - Icom 8-pin mod | 15.99 |
| 5084YH | KAM HF port - Icom 8-pin cable | 15.99 |
| 5084YV | KAM VHF/KPC3 - Icom 8-pin cable | 15.99 |
| 5086 | MFJ TNC - Kenwood/Alinco 8-pin cable | 15.99 |
| 5086M | MFJ TNC - Kenwood 8-pin modular | 15.99 |
| 5086MYV | KAM VHF/KPC3 - Ken 8-pin mod | 15.99 |
| 5086YH | KAM HF port - Ken/Ali 8-pin cable | 15.99 |
| 5086YV | KAM VHF/KPC3 - Ken/Ali 8-pin cable | 15.99 |
| 5088M | MFJ TNC - Radio Shack 8-pin modular | 15.99 |
| 5205 | 5-pin DIN open end cable | 4.99 |
| 5208 | Open end - Ico HF/VHF acc 8-pin DIN | 9.99 |
| 5213 | Open end - Kenwood acc 13-pin DIN | 9.99 |


Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

## MFJ - continued

| | | AES Price |
|---|---|---|
| 5220R/5220 | Open end - Yae FT50R/compat .. | 9.99 |
| 5222 | Open end - Ali split HT cable ..... | 9.99 |
| 5224 | Open end - Ico/Yae/Ali/RS HT cable ..... | 9.99 |
| 5268 | Open end - modular phone plug cable . | 9.99 |
| 5412 | IBM printer cable ..... | 9.99 |
| 5413 | RS-232 6' cable DB-25M-25F .....Δ | .99 |
| 5414 | RS-232 6' cable DB-25M-9F ..... | 9.99 |
| 5803/10 | 3' coax jumper cable ..... | 5.99 |

### RADIOS/TRANSCEIVERS

| | | |
|---|---|---|
| 8100K | Shortwave regenerative Rcvr kit ..... | $ 69.99 |
| 8100W | Shortwave regenerative Rcvr wired ... | 89.99 |
| 8621 | 5w 2m data radio w/145.01 MHz ..... | 139.99 |
| 8621X2 | 5w APRS ready 2m data radio/144.39 . | 149.99 |
| 4110 | Portable AC power supply ..... | 49.99 |
| 5100 | Data radio cable - MFJ/TAPR ..... | 15.99 |
| 5100YH | Data radio cable - KPC-9612 .....Δ | .99 |
| 5100YY | Data radio cable - KAM/KPC-3 ..... | 15.99 |
| 5106 | Open end - 6pin mini Ken/Yae cable | 4.99 |
| 8708 | 4ch ham micro ATV transmitter ..... | 149.99 |
| 9015 | 5w 15m CW Xcvr ..... | 169.99 |
| 9020 | 5w 20m CW Xcvr ..... | 169.99 |
| 9030 | 5w 30m CW Xcvr ..... | 169.99 |
| 9040 | 5w 40m CW Xcvr ..... | 169.99 |
| 27 | Handle for CW station ..... | 4.99 |
| 412 | Plug-in Curtis keyer ..... | 49.99 |
| 726 | Plug-in audio filter ..... | 29.99 |
| 971 | 200w portable ant tuner w/meter ..... | 99.99 |
| 1772 | Portable 20m dipole ..... | 39.99 |
| 1774 | Portable 40m dipole ..... | 39.99 |
| 4110 | Portable AC power supply ..... | 49.99 |
| 4114 | Rechargeable power pack ..... | 69.99 |
| 9117B | 9017 Xcvr/tuner/ps/ant package ....Δ | 199.99 |
| 9130B | 9030 Xcvr/tuner/ps/ant package .....Δ | 249.99 |
| 9140B | 9040 Xcvr/tuner/ps/ant package ....Δ | 269.99 |
| 9402X | 7w PEP 2m SSB Xcvr w/mic ..... | 269.99 |
| 9406X | 10w PEP 6m SSB Xcvr w/mic ..... | 249.99 |
| 9410X | 20w PEP 10m SSB Xcvr w/mic ..... | 239.99 |
| 9420X | 12w 20m SSB Xcvr w/mic ..... | 229.99 |
| 9440X | 12w 40m SSB Xcvr w/mic ..... | 229.99 |
| 9475X | 12w 75m SSB Xcvr w/mic ..... | 229.99 |
| 415B | SSB Xcvr CW adapter; 9420X/9440X | 49.99 |
| 416 | CW adapter for 9402X/9406X/9410X .. | 49.99 |
| 971 | 200w HF portable ant tuner w/meter .. | 99.99 |
| 1770A | 10m dipole for 9410X ..... | 39.99 |
| 4110 | Portable AC power supply ..... | 49.99 |
| 4114 | Rechargeable power pack ..... | 69.99 |

### ACCESSORIES

| | | |
|---|---|---|
| 1305 | 5v 300ma adapter .....D | $ 4.99 |
| 1306 | 6v 300ma adapter ..... | 14.99 |
| 1312 | 12vdc 300ma adapter, 2.5mm plug ..... | 14.99 |
| 1312D | 12vdc 500ma adapter, 2.1mm plug .. | 14.99 |
| 1316 | 12vdc 1.5A adapter ..... | 19.99 |
| 10-BCI-2 | Charger cup; Icom BP-131/132 ...Δ | .49 |
| 10-BCI-3 | Charger cup; Icom BP-173/180 ..Δ | .69 |
| 10-BCY-2 | Cgr cup;Yae FNB10/11/12/17/27 ...Δ | .69 |
| 15 | HamGear belt loop radio holder ..... | 14.99 |
| 18 | HamGear chest harness/cargo pocket ..... | 29.99 |
| 92AA01 | 1300ma AA NiMH cell .....each | 2.99 |
| 92AA10 | 10-pack 1300ma AA NiMH cells ..... | 24.99 |
| 201 | 1.5-250 MHz dip meter ..... | 109.99 |
| 202B | RF noise bridge ..... | 59.99 |
| 204B | HF Antenna bridge ..... | 79.99 |
| 206 | Antenna current probe .....D | 24.99 |
| 207 | 160-10m SWR analyzer ..... | 79.99 |
| 208 | 2m SWR analyzer ..... | 79.99 |
| 209 | 1.8-170 MHz SWR analyzer ..... | 129.99 |
| 212 | MatchMaker tune up device ..... | 79.99 |
| 219B | SWR analyzer, 440 MHz/N/SO-239 adapt | 89.99 |
| 224 | 2m FM signal analyzer ..... | 149.99 |
| 249B | 1.8-170 MHz SWR analy/LCD counter .. | 219.99 |

## MFJ - continued

| | | AES Price |
|---|---|---|
| 259B | 1.8-170 MHz SWR analy/RF res meter . | 239.99 |
| 269 | 1.8-170+440 MHz SWR analy/RF res mtr | 319.99 |
| 29C | Carrying case w/window; 209/249B/259B | 24.99 |
| 39C | Carrying case w/window; 269 ..... | 24.99 |
| 66 | 1.8-30/30-170 dip coils; 209/249B/259B | 19.99 |
| 92AA10 | 10-pack 1300ma AA NiMH cells ... | 24.99 |
| 98 | Package of 39C/66/1312D for 269 ..... | 54.99 |
| 98B | Pack of 92AA10/39C/66/1312D for 269 | 77.99 |
| 99 | Pack of 29C/66/1312D; 209/249B/259B | 54.99 |
| 99B | Pack; 92AA10/29C/66/1312D; 209/249B/259B | 77.99 |
| 99C | Pack - 92AA10/1312D; 209/249B/259B/269 | 34.99 |
| 731 | RFI filter for SWR analyzer ..... | 89.99 |
| 1312D | 12vdc 500ma ps for SWR analyzers | 14.99 |
| 270 | Guardian Angel 400w PEP lightning protect | 29.99 |
| 97 | Gas tube plug for 270 ..... | 9.99 |
| 281 | ClearTone communications speaker ..... | 12.99 |
| 288I | Headset/mic; Icom/ADI/Sta/RS/older Yae | 24.99 |
| 288K | Headset/mic for Kenwood ..... | 24.99 |
| 288Y | Headset/mic; Ico Q7/Yae FT10/50/VX1 . | 24.99 |
| 291K | Earphone for Kenwood spkr/mic .....D | .99 |
| 292I | Earph/mic; Ico/older Yae/compatibles .. | 17.99 |
| 292Y | Earphone/mic; Ico Q7/Yae FT10/50/VX1 | 17.99 |
| 293I | Rubber flex earloop earbud/mic; Icom .. | 24.99 |
| 293K | Rubber flex earloop earbud/mic; Kenwood | 24.99 |
| 293Y | Rubber flex earloop earbud/mic; Yaesu | 24.99 |
| 295I | Mini spkr/mic; Icom & compatible HT ... | 15.99 |
| 295K | Mini spkr/mic; Kenwood & compatible HT | 15.99 |
| 295Y | Mini spkr/mic; Ico Q7/Yae FT10/50/VX1 | 15.99 |
| 297 | Desk mic with flexible boom ..... | 69.99 |
| 5082 | Open end - 8-pin mic cable for 297 . | 9.99 |
| 5268 | Open end - mod phone plug cbl; 297 | 9.99 |
| 5397I | Cable/8-pin for 297; Icom HF ..... | 15.99 |
| 5397K | Cable/8-pin for 297; Kenwood HF ... | 15.99 |
| 5397Y | Cable/8-pin for 297; Yaesu HF ..... | 15.99 |
| 5397MX | Cable/modular for 297; Icom/Kenwood | 15.99 |
| 5397MY | Cable/modular for 297; Yaesu ..... | 15.99 |
| 310 | BNC HT antenna window mount clip ..... | 14.99 |
| 341M | 17' antenna cable; NMO ..... | 19.99 |
| 341S | 17' antenna cable; SO-239 ..... | 19.99 |
| 382 | Deluxe amplified communications spkr . | 39.99 |
| 384 | Dlx amp spkr w/speech control knob ...D | 29.99 |
| 1306 | 6v 300ma adapter for 384 only ..... | 14.99 |
| 388 | Cyber Ear 12db ear amplifier ..... | 29.99 |
| 392B | Deluxe communication headphones ..... | 19.99 |
| 394 | Boom mic/single headphone .....D | 39.99 |
| 5396I | Adapter; 394/396 with Ico Xcvr .....D | 4.99 |
| 5396K | Adapter; 394/396 with Ken Xcvr ...D | 4.99 |
| 5396Y | Adapter; 394/396 with Yae Xcvr ...D | 4.99 |
| 414 | Professional Morse Tutor w/LCD ..... | 189.99 |
| 417 | Code Tutor with QSO ..... | 59.99 |
| 418 | Code Tutor with LCD display ..... | 79.99 |
| 434 | Deluxe Voice Memory Keyer ..... | 169.99 |
| 73 | Remote control head w/cable for 434 ... | 29.99 |
| 461 | Pocket size Morse code reader ..... | 79.99 |
| 5161 | DB-9 PC serial port cable ..... | 14.99 |
| 5162 | Cable for radio external speaker ..... | 5.99 |
| 462B | RTTY/ASCII/CW/AMTOR Rcvr multi-reader | 169.99 |
| 5162 | Cable for radio external speaker ..... | 5.99 |
| 464 | CW reader w/built-in keyer ..... | 169.99 |
| 550 | Hand key ..... | 7.99 |
| 554 | Deluxe CW practice oscillator ..... | 79.99 |
| 557 | Code oscillator w/key ..... | 29.99 |
| 616 | Speech intelligibility enhancer ..... | 159.99 |
| 1316 | 12vdc 1.5A adapter ..... | 19.99 |
| 281 | ClearTone speaker (requires 2) ..... | 12.99 |
| 392B | Deluxe communication headphones . | 19.99 |
| 631 | Trickle wall charger; NiMH/nicad AA ..... | 9.99 |
| 633 | Rapid charger; NiMH/nicad AA/AAA/9V .. | 24.99 |
| 641-Y3 | Battery charger;Yaesu FNB-31/33 ..Δ | 6.99 |
| 10-BCY-3 | Charger cup; Yae FNB-31/33 ..Δ | .69 |
| 662 | Simplex pocket repeater ..... | 79.99 |

## MFJ - continued

| | | AES Price |
|---|---|---|
| 701 | Toroid RFI filters .....pack of 4 | 14.99 |
| 704 | 1kw low-pass filter ..... | 49.99 |
| 711 | High pass filter .....D | 19.99 |
| 762 | 81db 170MHz BNC attenuator ..... | 69.99 |
| 801 | Super compact field strength meter ..... | 19.99 |
| 802 | Bipolar field strength meter ..... | 39.99 |
| 802R | Field strength remote meter ..... | 24.99 |
| 802X | Field strength/remote meter combo ..... | 59.99 |
| 805 | RFI current detector meter ..... | 79.99 |
| 850 | AC line voltage monitor ..... | 19.99 |
| 852 | Power line noise current meter ..... | 89.99 |
| 854 | HF RF current meter ..... | 89.99 |
| 886 | 1MHz - 3GHz pocket frequency counter .. | 109.99 |
| 888 | Deluxe 10Hz - 3GHz frequency counter .. | 174.99 |
| 890 | DX beacon monitor ..... | 99.99 |
| 912 | W9INN remote balun ..... | 49.99 |
| 916 | 2m/440 duplexer ..... | 29.99 |
| 931 | Artificial ground unit ..... | 89.99 |
| 1025 | Noise canceling antenna ..... | 149.99 |
| 1026 | Deluxe noise canceling unit w/antenna | 169.99 |
| 1046 | 1.6-33MHz receiver passive preselector | 89.99 |
| 1048 | 1.6-33MHz Xcvr passive preselector ..... | 109.99 |
| 1112 | Multiple DC outlet ..... | 34.99 |
| 1116 | Dlx multiple DC outlet ..... | 49.99 |
| 1117 | High current multiple DC outlet ..... | 54.99 |
| 1118 | Dlx high current multiple DC outlet ..... | 74.99 |
| 1213 | Interface for JVFAX/HamComm ..... | 49.99 |
| 1262 | Microphone switch; 8-pin round ..... | 79.99 |
| 1268 | IBM PC memory keyer .....Δ | .69 |
| 1273B | Basic soundcard interface/soft; 8P-R | 59.99 |
| 1273BM | Basic soundcard interface/soft; 8P-M | 59.99 |
| 1275 | Soundcard/rig interface/software; 8P-R | 99.99 |
| 1275M | Soundcard/rig interface/software; 8P-M | 99.99 |
| 1279 | Super soundcard interface/soft; 8P-R .. | 129.99 |
| 1279M | Super soundcard interface/soft; 8P-M | 129.99 |
| 1292 | Video digitizer for IBM .....Δ | 4.99 |
| 1683I | Rig Windows software for Icom .....D | .99 |
| 1683K | Rig Windows software for Kenwood .D | .99 |
| 1700B | Combination ant/xmtr switch ..... | 79.99 |
| 1701 | 6-position coax switch ..... | 49.99 |
| 1702C | 2-pos coax switch/lightning protect .. | 24.99 |
| 1702CN | 2-pos 1.1GHz N switch/lightning protect | 34.99 |
| 1704 | 4-pos 500 MHz switch/lightning protect | 64.99 |
| 1704N | 4-position type N switch ..... | 74.99 |
| 1925 | Controller; Yaesu ATAS-100/other rigs . | 59.99 |
| 1925I2 | Controller; Yae ATAS-100/Ico IC-706 . | 59.99 |
| 4035MV | Dlx 30A adjustable ps, 35A surge ... | 139.99 |
| 4103 | Switching power supply for Yaesu FT-817 | 39.99 |
| 4125MV | MightyLite 22A 3.5 lb switch ps, 25A surge | 99.99 |
| 4225MV | MightyLite 22A switching ps, 25A surge | 139.99 |
| 4245MV | MightyLite 40A switching ps, 45A surge | 189.99 |

## MG Electronics (MGE)

| | | |
|---|---|---|
| HFS-1 | 10w mobile spkr, 3.5mm plug .....D | $ 9.99 |

## MAGELLAN (MAG)

| | | |
|---|---|---|
| 00-19060-000 | Pwr/data cbl; Tracker/ColorTrak Δ | $ 4.99 |
| 730275 | Ext pwr cbl w/cig adapt; MAP330 .Δ | 14.99 |
| 730277 | PC cable/cig adaper; MAP330 .....Δ | 29.99 |
| Meridian XL | GPS/plotter/detachable ant/case D | 89.99 |
| Meridian GPS | GPS with 2MB base map .....D | 169.99 |
| Meridian Gold | GPS with 16MB base map ..... | 249.99 |
| Meridian Platinum | GPS/16MB/compass/barometric | 349.99 |
| Meridian Color | Handheld color GPS/16MB .. | 499.99 |
| 980611 | MapSend Topo CD-ROM ..... | 99.99 |
| 980613-01 | MapSend Streets & Destinations CD | 99.99 |
| 980654-01 | MapSend DirectRoute; Gold/Plat/Col | 149.99 |
| SporTrak* | GPS receiver w/1MB memory ..... | 169.99 |
| *$30 rebate from Magellan thru 10/31/03! | | |
| SporTrak Map | GPS w/2MB map+4MB mem . | 199.99 |
| SporTrak Pro | GPS w/9MB map+23MB mem | 269.99 |
| SporTrak Color | Handheld color GPS/9MB ..... | 449.99 |

## Magellan - continued

AES Price

980611 MapSend Topo CD-ROM ..... 99.99
980613-01 MapSend Streets & Destinations CD 99.99
980654-01 MapSend DirectRoute; Pro/Color 149.99

## MAHA (MAH)

9V 8.4v 170mah 9v size NiMH batt cell ....ea $ 8.99
AAA-T 1.2v 650mah AAA size NiMH batt cell ea 2.99
AA-FB 1.2v 1400mah AA NiMH batt w/tabs D,ea 2.99
4-AA-180 4pack 1.2v 1800mah AA NiMH cells Δ 14.99
4-AA-220-BH 4pack 1.2v 2200mah AA NiMH cells 18.99
MH-C124S Reg cgr; 1-4 AA/AAA NiMH/NiCD . 9.99
MH-C204F Quik cgr/condi; 2/4 AA/AAA NiMH/NiCD ... 24.99
MHS-DC-124 Cig adapter; MH-C124S/C204F 5.99
MH-C204F8AA22 Charger/8 AA2200/car adapt 49.95
MH-C401FS 100min/5hr AA/AAA cgr w/4 AA NiMH D 39.99
MH-C401FS4AA22 Charger/4 AA2200/car adapt 49.95
MH-BP-7 13.2v 1000mah Icom nickel hydride 69.99
MH-BP-8 8.4v 1200mah Icom nickel hydride 59.99
MH-BP-8H 8.4v 1800mah Icom nickel hydride 69.99
MH-BP-83 7.2v 1300mah Icom nickel hydride 49.99
MH-BP-132B 12v 1300mah Ico blk nick hyd/mic Δ 39.99
MH-BP-132G 12v 1300mah Ico gray nick hyd/mic Δ 39.99
MH-BP-173 9.6v 650mah Icom nickel hydride 69.99
MH-BP-180 7.2v 1000mah Icom nickel hydride 49.99
MH-BP-196M 9.6v 1350mah Icom nick hydride 49.99
MH-BP-199 6v 700mah Icom nick hydride/clip 55.99
MH-BP-200 9.6v 680mah Icom nick hydride/clip 59.99
MH-CNB-152 12v 1000mah Sta nickel hydride 59.99
MH-CNB-153 7.2v 1300mah Sta nickel hydride 49.99
MH-FNB-12 12v 1000mah Yaesu nickel hydride 59.99
MH-FNB-17 7.2v 1000mah Yaesu nickel hydride 49.99
MH-FNB-27 12v 900mah Yaesu nickel hydride 59.99
MH-FNB-31 4.8v 650mah Yae nickel hydride Δ 39.99
MH-FNB-38 9.6v 650mah Yaesu nickel hydride 59.99
MH-FNB-40H 7.2v 650mah Yae nick hyd/spg clip Δ 49.99
MH-FNB-41 9.6v 1000mah Yae nick hyd/spg clip 55.99
MH-FNB-V47 7.2v 1800mah Yae nick hyd/spg clip 69.99
MH-FNB-V57 7.2v 1500mah Yae nickel hydride 49.99
MH-FNB-58LI 1200mah li-polymer; Yae VX5R 59.99
MH-FNB-72 9.6v 1700mah Yae nickel hydride . 59.99
MH-PB-8 12v 1300mah Kenwood nickel hydride 62.99
MH-PB-17 12v 1300mah Kenwood nickel hydride 69.99
MH-PB-18 7.2v 1300mah Ken nick hyd; wall cgr only 49.99
MH-PB-32 6v 1000mah Kenwood nickel hydride 47.99
MH-PB-34 9.6v 1000mah Kenwood nickel hydride 57.99
MH-PB-39 9.6v 1050 mah Ken nickel hyd/clip . 59.99
MH-PB-39H 6v 1800mah Ken nickel hyd/clip .. 59.99
MH-PB-42LI 1800mah li-polymer; Ken THF6A 69.99
MH-C777 Univ cgr/conditioner/cig cord; nicad/nimh 49.99
MHS-CW4 Clip-leads for external charging 3.99
MH-C777 Plus Univ cgr/analy; lith/nicd/nimh D 69.99
MH-C777 Plus II Univ cgr/analy; lith/nicd/nimh 89.99
MH-C888 Univ drop-in rapid cgr/cond; nicad/nimh 59.99
MHS-C800U External charger pin shell ...† 4.99
MHS-C801 Cup; T2/W32/TH22/79/FT10/50 7.99
MHS-C802 Cup; IC02AT/TH78/FT470/530 .. 7.99
MHS-C803 Cup; Kenwood TH-D7A/G71A .... 7.99
MHS-C804 Cup; Icom IC-T8A/T81A ..... 7.99
MHS-C805 Cup; Yaesu FT-11/41/51R ..... 7.99
MHS-C806 Cup; Ali 195/580/F1/G5/V5/etc 7.99
MHS-DC-777 Cig lighter cord ..... 5.99
MH-101-I1 Cgr;Ico157/160/174/131/2/Mah 132B/G D 4.99
MH-101-Y1 Cgr;Yae 10/11/12/17/25/27/Mah 12/27 D 6.99
MH-101-Y2 Cgr;Yae FNB31/38/Mah MHFNB38 D 6.99
MH-800K 500mw spkr/mic w/clip; Kenwood . 19.99
MH-800S 500mw spkr/mic/clip; Ali/Ico/Sta/Yae 19.99
MH-800Y 500mw spkr/mic; Yae FT50/VX1R .. 24.99
MHS-I1 Ico 2G/02/2/32 adapt; A301/302 ...D .99
MHS-I2 Ico 2SAT/W2 adapter; A301/302 .....D .69
MHS-I3 Ico 2GXAT/W21AT adapt; A301/302 D .99

## Maha - continued

AES Price

MHS-I5 Ico T8A/T81A adapter; A301/302 ...D 2.99
MHS-K1 Ken 25/26/75/77 adapt; A301/302 ....D .99
MHS-K2 Ken TH22/79 adapter; A301/302 ...D .99
MHS-K3 Ken G71A/D7A adapt; A301/302 ...D 2.99
MHS-S1 ADI/Standard adapt; A301/302 .....D .99
MHS-Y1 Yae 23/411E/470 adapt; A301/302 ...D .99
MHS-Y2 Yae 26/415/530 adapt; A301/302 D .99
MHS-Y3 Yae FT11/41/51 adapt; A301/302 D .99
MHS-Y4 Yae FT10/40/50 adapt; A301/302 D .99

## MALDOL (MAL)

AH-14 20m telescoping ant w/BNC; FT-817... $ 45.99
AH-28 10m telescoping ant w/BNC; FT-817... 45.99
AH-C7 40m loading coil only w/BNC; FT-817 33.99
AH-C14 20m loading coil only w/BNC; FT-817 33.99
AH-C21 15m loading coil only w/BNC; FT-817 33.99
AH-C28 10m loading coil only w/BNC; FT-817 33.99
AH-R Telescoping whip for AH-C7/14/21/28 17.99
AH-510R 6/2m/440 37" BNC tele whip; FT-817/HT 59.99
AH-510R/SMA 6/2m/440 37" SMA tele whip .... 59.99
AS-20 2m/440 8.5" superflex SMA antenna... 29.99
AS-25 2m/440 1" SMA antenna ..... 19.99
AS-30 2m/440 15" 0/2.15db superflex SMA ant 29.99
AX-50 2m/440 0/5db 21" mobile antenna .... 46.99
AX-75 2m/440 3.2/5.7db 30" mobile ant ..... 54.99
AX-95 2m/440 3.3/5.8db 38" mobile ant ..... 59.99
EM-B80 Small trunk/hatch/van door lip mt .. 25.99
EX-104B 2m/440 black 0/2.15db 15" mob ... 41.99
EX-104BNMO 2m/440 blk 0/2.15db 15" NMO 39.99
EX-107RB 2m/440 black 2.6/4.9db 29" mob 52.99
EX-107RBNMO 2m/440 blk 2.6/4.9db 29" NMO 52.99
EX-510B 6m/2m/440 blk 0/2.15/5.5db 37" mob 62.99
EX-510BNMO 6m/2m/440 blk 0/2.15/5.5db 37" NMO 62.99
FVS-50 Dlx 2-step 16' 9" cable w/UHF connects 39.99
HVU-8 80/40/20/15/10/6/2m 8.6' vert w/radials 319.99
HMC-6S 20/15/10/6/2m/440 68" mobile ant 149.99
HMC-7C 40m loading coil for HMC-6S ..... 34.99
MH-209 2m/440 3" BNC duck ..... 23.99
MH-209SMA 2m/440 3" SMA duck ..... 23.99
MH-510 6m/2m/440 0/0/3.2db 20.75" SMA duck 37.99
MH-511 6m/2m/440 4.25" SMA duck ..... 33.99
MH-610 2m/220/440 0/1.8/3.2db 14" SMA duck 49.99
MK-30H Motorized tnk lip/hatch/van door mt 104.99
MSG-1000C 2m/440 2.15/5.5db 39" mobile D 39.99
PR-212DNMO 2m/440 6/8.5db 85" NMO mob D 79.99
PRM-T Large trunk/hatch/van door lip mt .... 29.99
SHG-140B 2m 4.1db 56" mobile antenna ..... 49.99
SHG-140BNMO 2m 4.1db 56" NMO mob ant . 49.99
SHG-1500B 2m/440 blk 4.5/7.5db 59" mob D 59.99
SHG-1500BNMO 2m/440 blk 4.5/7.5db 59" NMO D 49.99

## MAXON (MAX)

MX-49FX 5 ch 49 MHz ear mic Xcvr ..... $ 49.99
MX-49SX 49 MHz boom mic/headset Xcvr ..... 29.99

## MEADE (MEA)

0705-04-01 ETX-70AT Astro telescope w/tripod $319.99
07025 #882 Extra std tripod .special order 99.99
07027 #884 Deluxe tripod ..... 199.99
07137 1.25" 5mm Plossl lens ..... 59.99
07139 1.25" 18mm WA lens ..... 69.99
07170-02 1.25" 6.4mm super Plossl lens . 89.99
07173-02 1.25" 15mm super Plossl lens ... 89.99
07220 #933 45° 1.25" erecting prism ..... 69.99
07273 #126 1.25" 2x short-focus Barlow lens 59.99
07279 #670 dew shield ..... 19.99
3514-03-20 ETX-90AT Astro tele/ctrlr/tripod 599.99
0515-03-20 ETX-125AT Astro tele/ctrlr/tripod 999.99
07137 1.25" 5mm Plossl lens ..... 59.99
07139 1.25" 18mm WA lens ..... 69.99
07170-02 1.25" 6.4mm super Plossl lens . 89.99
07173-02 1.25" 15mm super Plossl lens ... 89.99
07273 #126 1.25" 2x short-focus Barlow lens 59.99

## Meade - continued

AES Price

07217 #928 45° 1.25" erecting prism; DS60/70/90 Δ 49.99
07436 #497 Autostar controller; ETX-125EC .... Δ 119.99
494 #494 Autostar controller; DS-EC-series ....D 19.99
20117 DS-2114ATS 114mm reflector telescope 399.99
20201 NGC-60 60mm refractor telescope ..... 199.99
07137 1.25" 5mm Plossl lens ..... 59.99
07139 1.25" 18mm WA lens ..... 69.99
07170-02 1.25" 6.4mm super Plossl lens . 89.99
07173-02 1.25" 15mm super Plossl lens ... 89.99
07273 #126 1.25" 2x short-focus Barlow lens 59.99
07522 908B broadband nebula filter .....Δ 59.99

## MIDLAND (MID)

22-410 Speaker/mic for 75-510XLB .....D $ 2.99
23-505 1.5-150MHz dual meter SWR/power . 19.99
74-200 SAME weather/hazard alert radio/ps .... 49.99
WR-30 FM/SAME weather/hazard alert radio/ps D 44.99
WR-300 AM/FM/SAME WX/hazard alert radio/ps 49.99

## Miracle Antenna (MIA)

Miracle Whip 3.5-450MHz 57" QRP ant/tuner $119.99

## MIRAGE (MIR)

A-1015G 50-52 FM/SSB 10/150w amp/preamp $349.99
B-34 2m FM 2/35w amplifier; no mob bkt .... 69.99
B-34G 2m FM/SSB 3.5/35w amp/preamp ..... 89.99
B-310G 2m FM/SSB 4/100w amp/preamp .... 179.99
B-320G 2m FM/SSB 50/200w amp/preamp .. 429.99
B-1018G 2m FM/SSB 10/160w amp/preamp 369.99
B-2518G 2m FM/SSB 25/160w amp/preamp 299.99
B-2530G 2m FM/SSB 25/300w amp/preamp 689.99
B-5018G 2m FM/SSB 50/160w amp/preamp 299.99
B-5030G 2m FM/SSB 50/300w amp/preamp .. 669.99
BD-35 2m/440 4/45//4/35w HT amp ..... 149.99
BD-38/BD-38G 2m/440 4/80w HT amp/preamp 279.99
B-24G 5/50w 2m HT dock boost amp/pre ..... 109.99
BD-25 5/45//5/35w 2m/440 HT dock boost .... 164.99
MI-1 Ico 2G/02/2/23 adapter; B24G/BD25 9.99
MI-2 Ico 2SAT/W2 adapter; B24G/BD25 ..... 9.99
MI-3 Ico 2GXAT/W21AT adapt; B24G/BD25 9.99
MK-1 Ken 25/26/75/77 adapt; B24G/BD25 9.99
MK-2 Ken 22/79 adapter; B24G/BD25 ..... 9.99
MS-1 ADI/Standard adapter; B24G/BD25 .. 9.99
MY-1 Yae 23/411E/470 adapt; B24G/BD25 . 9.99
MY-2 Yae 26/415/530 adapt; B24G/BD25 . 9.99
MY-3 Yae FT11/41/51 adapt; B24G/BD25 .. 9.99
MY-4 Yae FT10/40/50 adapt; B24G/BD25 .. 9.99
C-22G 220 FM/SSB 2/20w amp/preamp ..... 154.99
C-211G 220 FM/SSB 2/110w amp/preamp ..... 329.99
C-1012G 220 FM/SSB 10/120w amp/preamp 329.99
C-1022G 220 FM/SSB 10/220w amp/preamp 689.99
C-2512G 220 FM/SSB 25/120w amp/preamp 309.99
C-5022G 220 FM/SSB 50/200w amp/preamp Δ 369.99
D-15N 430 FM/SSB/ATV 2/15w type N amp ... 169.99
D-26N 440 FM/SSB 2/60w type N amplifier .. 259.99
D-1010N 440 FM/SSB 10/100w type N amp . 379.99
D-3010N 440 FM/SSB 30/100w type N amp . 349.99
D-1010-ATVN 430 ATV 10/100w type N amp . 399.99
RC-1* Remote control head w/18' cable ..... 45.99
*Not for B-23/C-22/D-26
RC-2 Rem ctl head/cable; B-XX18G ..... 45.99

**The following Repeater Amplifiers are Special Order. Specify SO-239 or type N connectors**

A-1015NR 6m FM 2/80w type N amplifier ..... $549.99
A-1015R 6m FM 2/80w SO-239 amplifier ..... 529.99
C-211NR 220 FM .5/80w type N amplifier .... 619.99
C-211R 220 FM .5/80w SO-239 amplifier ..... 599.99
C-1012NR 220 FM 5/90w type N amplifier ... 619.99
C-1012R 220 FM 5/90w SO-239 amplifier .... 599.99
C-2512NR 220 FM 15/90w type N amplifier . 589.99
C-2512R 220 FM 15/90w SO-239 amplifier .. 569.99


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Browse Our Store On-Line at www.aesham.com

## Mirage - continued

| | AES Price |
|---|---|
| D-1010NR 440 FM 4/80w type N amplifier ... | 629.99 |
| D-3010NR 440 FM 12/80w type N amplifier . | 599.99 |
| D-1010-ATVN-R 430 ATV 4/80w type N amp . | 629.99 |

### PREAMPS

| | |
|---|---|
| KP-1/10M 10m in shack preamp .....Δ | $119.99 |
| KP-1/6M 6m in shack preamp ..... | 129.99 |
| KP-1/2M 2m in shack preamp ..... | 129.99 |
| KP-1/220 220 in shack preamp .....Δ | 119.99 |
| KP-1/440 440 in shack preamp ..... | 129.99 |
| KP-2/10M 10m mast mount preamp .....Δ | 129.99 |
| KP-2/6M 6m mast mount preamp ..... | 179.99 |
| KP-2/2M 2m mast mount preamp ..... | 179.99 |
| KP-2/220 220 mast mount preamp .....Δ | 139.99 |
| KP-2/440 440 mast mount preamp ..... | 179.99 |

### WATTMETER

| | |
|---|---|
| MP-3 420-450 5/50/150w PEP wattmeter .Δ | $229.99 |

## MOTOROLA (MOT)

| | |
|---|---|
| 50226 Headset w/mic for older FRS .....Δ | $ 9.99 |
| 53834 Rosewood T5200 Alkaline FRS .....D | 29.99 |
| 53725 Headset w/microphone .....Δ | 14.99 |
| T-4500-2 22ch 500mw GMRS/FRS handheld .pair | 29.99 |
| T-5950-2/AA 22 ch 1w GMRS/FRS HH .....pair | 79.99 |

## NCG (NCG)

| | |
|---|---|
| Power Pocket 12v 2AH lead acid belt batt/cgr | $ 66.99 |

## NCS (NCS)

| | |
|---|---|
| NCS-3230 Multi-receiver receive console ..... | $349.99 |
| NCS-1514 Wall power supply; NCS-3230 ... | 24.99 |
| NCS-P2PH35-A Multi-rx/spkr out set 6 cables | 42.99 |
| NCS-MRx2MS-A 3240 & 3230 interface cbl kit | 49.99 |
| NCS-3240 Multi-switcher audio device ..... | 299.99 |
| NCS-1512 Wall power supply; NCS-3240 ... | 12.99 |
| NCS-LoZNC Unterminated interface cable . | 17.99 |
| NCS-LoZ8PI-I Icom 8-pin interface cable . | 24.99 |
| NCS-LoZRJ45-I Icom modular interface cable | 23.99 |
| NCS-LoZ8PI-K Kenwood 8-pin interface cable | 24.99 |
| NCS-LoZRJ45-K Kenwood modular interface cbl | 23.99 |
| NCS-LoZ8PI-Y Yaesu 8-pin interface cable | 24.99 |
| NCS-LoZRJ12-Y Yaesu modular interface cbl | 23.99 |
| NCS-3400 Multi-patch audio patch panel ..... | 129.99 |

## Night Owl Optics (NOO)

| | |
|---|---|
| NOCC-3 3.1x42 night vision scope w/illuminator | $139.99 |
| NOCA-42 Camera adapter ..... | 39.99 |
| NOLD-20 Lens doubler ..... | 39.99 |
| NODS-5 5x48 night vision scope w/illuminator | 249.99 |
| NOCA-42 Camera adapter ..... | 39.99 |
| NOXG-2 3x G2 night vision scope w/illuminator | 899.99 |
| NOCA-42 Camera adapter ..... | 39.99 |

## NORCOMM (NOR)

| | |
|---|---|
| NC-101 Tunable CTCSS encoder ..... | $ 21.99 |
| NC-104 Programmable CTCSS encoder ..... | 26.99 |
| NC-106 Prog CTCSS encoder/decoder ..... | 62.99 |
| NC-401 Sub-miniature DTMF decoder ..... | 62.99 |

## Oregon Scientific (ORE)

| | |
|---|---|
| EMR-812A Wireless thermometer ..... | $ 29.99 |
| THR-138 Extra wireless sensor; EMR-812A | 24.99 |
| PE-319 Pedometer with personal security .... | 19.99 |
| RGR-122 Wireless rain gauge w/LCD console | 59.99 |
| RM-116E Exactset radio controlled clock ..... | 29.99 |
| WMR-112A Wireless weather station ..... | 199.99 |
| WM-918 Dlx weather station w/rain gauge ... | 229.99 |
| WMR-968 Dlx wireless WX stn w/rain gauge . | 399.99 |
| WR-102 Port WX/hazard radio/SAME alert .... | 49.99 |
| WR-196T AM/FM/SAME WX alert clock radio . | 69.99 |

## OUTBACKER (OUT)

| | |
|---|---|
| OB-8 75-10m 300w PEP 6' 8-band mobile ant | $279.99 |
| OB-8HP 75-10m 500w PEP 6' 8-band mob ant | 299.99 |

## Outbacker - continued

| | AES Price |
|---|---|
| OB-S8 75-10m 300w PEP split ant/storage bag | 299.99 |
| OB-8TRI 75-10m 300w PEP 3pc 6' port ant/bag | 329.99 |
| Joey 80-2m 20w antenna w/counterpoise .... | 249.99 |
| (ALP) MicroMount Tripod system for Joey ... | 49.99 |
| OB-M 75/40/20/17/10m/HF marine 300w PEP 6' | 399.99 |
| Perth 75-10m 150w PEP 7.5' mobile ant ..... | 289.99 |
| Perth Plus 75-10m+6m/2m 150w PEP 6' mob ant | 299.99 |
| Stealth Plus 75-10m+6/2m 100w PEP 4' ant | 269.99 |
| Outreach 160-10m 300w PEP 12' antenna ... | 399.99 |
| Outreach 500 80-6m 600w PEP 12' antenna | 439.99 |
| (ALP) Outpost Base tripod mtg sys for mob ant | 199.99 |
| OB-SB ⅜-24 spring and ½" hole base ..... | 99.99 |
| Diamond K-400-3/8C ⅜-24 trunk mt, 6' coax | 69.99 |
| Diamond C-110 10' ext cable; K-400-3/8C | 14.99 |

## PACCOMM (PAC)

| | |
|---|---|
| Spirit-2 Std high performance controller .....Δ | $199.99 |

## Palomar Engineers (PAL)

| | |
|---|---|
| MSB-3 Magnetic switch receive balun .....D | $ 9.99 |
| PT-340 Tuner-Tuner (use with ant tuner) ..... | 99.99 |
| RFI-4 RF interference kit ..... | 25.99 |
| SMB-5 SmartBridge prog; AT computers .....D | .19 |
| VLF-A VLF converter; 10-500 KHz to 80m ..... | 99.99 |
| VLF-S VLF conv; 10-500 KHz to 4-4.5 MHz .... | 99.99 |

## PAR (PAR)

| | |
|---|---|
| OA-28 10m horizontal omni antenna ..... | $ 74.99 |
| OA-50 6m horizontal omni antenna ..... | 69.99 |
| SK-50 Stacking harness for OA-50 ..... | 36.99 |
| OA-144 2m horizontal omni antenna ..... | 54.99 |
| SK-144 Stacking harness for OA-144 ..... | 34.99 |
| OA-222 220 horizontal omni antenna ..... | 54.99 |
| SK-222 Stacking harness for OA-222 .....Δ | 14.99 |
| OA-432 430 horizontal omni antenna ..... | 54.99 |
| SK-432 Type N stacking harness; OA-432 .. | 54.99 |
| SM-50 6m 2el stressed moxon 5.8db beam .. | 79.99 |
| UHFDN450 440 dual band notch filter ..... | 69.99 |
| VHFDN152 2m dual band notch filter ..... | 69.99 |
| VHFDN152HT 2m dual band HT notch filter .. | 68.99 |
| VHFTN152-158 2m dual band+pager notch filt | 82.99 |
| UHF-12 12" RG58/silver/gold/tef PL259s .. | 9.99 |

## PENETROX (PEN)

| | |
|---|---|
| Penetrox A 4 oz tube for antennas ..... | $ 12.99 |

## POLICE CALL (POL)

| | |
|---|---|
| Vol 3/4 2003 IL/IN/KY/MI/OH/WI book/48 state CD | $ 19.99 |
| Vol 5/8 2003 AZ/CO/IA/NV/others book/48 state CD | 19.99 |

## POLYPHASER (PLY)

### LIGHTNING PROTECTION

| | |
|---|---|
| IS-50NX-C2 125-1000 375/125/50w N flange | $ 61.99 |
| IS-50UX-C0 1.5-400 2kw/375/125w flange mt | 61.99 |
| IS-50UX-C1 50-700MHz 375/125w flange mt | 61.99 |
| IS-B50LN-C2 125-1000 375/125/50w N bulkhead | 64.99 |
| IS-B50LU-C0 1.5-400 2kw/375/125w bulkhead | 64.99 |
| IS-B50LU-C1 50-700 375/125w bulkhead mt | 64.99 |
| IS-IE50LU-C0 1.5-400 dlx 2kw/375/125w bulk | 119.99 |
| IS-IE50LU-C1 50-500 dlx 375/125w bulkhead Δ | 49.99 |
| IS-IE50LN-C1 50-700 dlx 375/125w N bulkhead | 109.99 |
| BF Adapter Bulkhead to flange mt adapter . | 9.99 |
| FB Adapter Flange to bulkhead mt adapter . | 11.99 |
| IS-PLDO-120-15A 120v 15A power protector | 159.99 |
| IS-PLDO-120-20A 120v 20A power protector | 199.99 |
| IS-RCT 8-wire rotor control protector ..... | 54.99 |
| J-1 ½" to 1⅓" bronze transition clamp .... | 8.99 |
| J-2 1½" to 2¼" bronze transition clamp .. | 12.99 |
| IS-SPTL Single phone line protector ..... | 57.99 |
| CS112-25 25' 1½" copper strap ..... | 25.99 |
| CS112-50 50' 1½" copper strap ..... | 49.99 |
| CS112-75 75' 1½" copper strap ..... | 74.99 |

## Polyphaser - continued

| | AES Price |
|---|---|
| CS112-100 100' 1½" copper strap ..... | 99.99 |
| CS3-25 25' 3" copper strap ..... | 49.99 |
| CS3-50 50' 3" copper strap ..... | 99.99 |
| CS3-75 75' 3" copper strap ..... | 139.99 |
| CS3-100 100' 3" copper strap .....Δ | 159.99 |
| CU-SPGP Copper single point ground panel . | 69.99 |
| TK-2 1½" strap to Rohn twr corrosion free clamp | 5.99 |
| TK-3 1½" strap-2¼" to 3¾" mast corr free clamp | 8.99 |
| 1C-112S #6-#1 wire to 1½" strap clamp bond | 10.99 |
| 58R-112S 1½" strap to ⅝" gnd rod clamp bond | 12.99 |
| MSC-3 Junc; 2+ 1½" or 3" strap clamp bond | 10.99 |
| UNI-KIT 2CT Gnd kit; coax to alum/tin/galv .. | 29.99 |
| UNI-KIT 2TC Gnd kit; galv twr leg to copper . | 32.99 |
| UNI-KIT 2CC Ground kit; coax to copper ..... | 28.99 |
| CCK Copper cleaning kit; 4 oz can, brush ..... | 27.99 |
| GLEP Lightning and EMP Protection book ..... | 20.00 |

## Power Port (See Cutting Edge)

## PREMIER (PRE)

| | |
|---|---|
| AL-800 2m/440 34" BNC rubber duck ant .... | $ 29.99 |
| RD-2 2m/440 2" BNC duck ..... | 14.99 |
| RD-2SMA 2m/440 2" SMA duck ..... | 15.99 |
| RD-8 2m/440/900 6.5" BNC duck ..... | 14.99 |
| RD-9 2m/440/900 7" BNC duck ..... | 18.99 |
| RD-9SMA 2m/440/900 7" SMA duck ..... | 20.99 |
| RD-78 2m/440/900 15" BNC whip ..... | 19.99 |
| RD-98 2m/440 17" BNC whip ..... | 24.99 |
| RD-98SMA 2m/440 17" SMA whip ..... | 27.99 |
| SPM-100 Spkr/mic; ADI/Alinco/Icom/Yaesu ... | 27.99 |
| SPM-101 Spkr/mic for Kenwood ..... | 27.99 |
| SPM-102 Spkr/mic; Yaesu FT-50R/VX-1R/5R | 27.99 |
| SPM-400A Boom/mic; ADI/Alinco/Icom/Yaesu | 37.99 |
| SPM-402A Boom mic; Yae FT-50R/VX-1R/5R | 37.99 |
| PCA-YHF Cable/8-pin; Yaesu HF .....Δ | .99 |
| PCA-YVHF Cable/modular; Yaesu VHF .....Δ | .99 |

## PRO AM by VALOR (VAL)

### VHF/UHF ANTENNAS ONLY (No Mounts)

| | |
|---|---|
| MO144-440 2m/440 antenna only ..... | $ 21.99 |
| PAQA 136-515 MHz ¼ wave antenna only ..... | 8.99 |
| PHB-144 2m ⅝ wave 3 db antenna only ..... | 29.99 |

### MOUNTS ONLY FOR ABOVE ANTENNAS

| | |
|---|---|
| PAM Low profile magnet mount w/coax ..... | $ 24.99 |
| PAMB Black low profile mag mount w/coax .. | 24.99 |
| PAN38 ⅜-24 antenna to NMO mt adapter ..... | 14.99 |
| PAS ¾" surface mount w/coax ..... | 19.99 |
| PASMO ¾" surface mt only (no coax) ..... | 7.99 |
| PAS38 ⅜" surface mount w/coax .....Δ | 9.99 |
| PAT-2 No hole trunk mount w/coax ..... | 19.99 |
| PAT-2B Black no hole trunk mount w/coax .... | 19.99 |

### OTHER VHF/UHF ANTENNAS & MOUNTS

| | |
|---|---|
| 100ADN SO-239 horizontal mirror mt ..... | $ 10.99 |
| 101ADN HD alum mirror mt w/SO-239 ..... | 10.99 |
| 105AD Hvy duty ⅜" mount assembly ..... | 6.99 |
| 105HD Heavy duty mount assembly ..... | 3.99 |
| 301 4" low profile ⅜-24 magnet mt w/coax .. | 16.99 |
| 401 5" low profile ⅜-24 magnet mt w/coax .. | 19.99 |
| BNC-SC-RS Suction cup extension; ducks ..... | 14.99 |
| DAK Mt for 2 vert ants or horizontal dipole ... | 13.99 |
| GM-144 2m 2.5db on glass antenna ..... | 29.99 |
| GM-270 2m/440 2.6/6.3db on glass antenna | 59.99 |
| TGMKD On glass replacement mtg kit ..... | 8.99 |
| MM-3401 Maxi-mag mt ⅜-24 kit (3-5" mags) | 59.99 |
| MM-3401B Blk mag mt ⅜-24 kit (3-5" mags) D | 59.99 |
| SS-100MOT 3-way NMO mirror mt w/coax ..... | 23.99 |
| CX-144 2m ⅝ wave 3db ⅜-24 whip ..... | 17.99 |
| MM-270B 2m/440 mini mag mt ant w/BNC . | 19.99 |
| PM-144-440BN 2m/440 BNC mag mt ant .... | 29.99 |
| TGS 30-1200MHz on-glass scanner ant ..... | 39.99 |
| VAA-002B 144-450 black ¼ wv mag mt ant . | 23.99 |

## Pro Am - continued

AES Price

VAA-002BBN 144-450 black ¼ wv BNC mag ant 27.99
120 Sawtooth hump mt for mobile radios ..... 7.99
D-270 2m/440 100w duplexer .....D 39.99

### MOBILE HF ANTENNAS (No Mounts)

AB-5 75/40/20/15/10m antenna ..... $119.99
PHF-160 160m 8' ⅜-24 whip ..... 89.99
PHF-75 75m 8' ⅜-24 whip (4' coil, 4' whip) . 29.99
PHF-40 40m 8' ⅜-24 whip (4' coil, 4' whip) . 23.99
PHF-30 30m 8' ⅜-24 whip (4' coil, 4' whip) . 23.99
PHF-20 20m 8' ⅜-24 whip (4' coil, 4' whip) . 23.99
PHF-17 17m 8' ⅜-24 whip (4' coil, 4' whip) . 23.99
PHF-15 15m 8' ⅜-24 whip (4' coil, 4' whip) . 23.99
PHF-12 12m 8' ⅜-24 whip (4' coil, 4' whip) . 23.99
PHF-10 10m 8' ⅜-24 whip (4' coil, 4' whip) . 23.99
PHF-6 6m 58" ⅜-24 whip ..... 23.99
103S Quick disconnect/5 twist lock connectors 24.99

## QRZ (WAL)

Ham QRZ US & international calls plus programs $ 29.99

## QSL Card Holders (ART)

QSL Card Holders, pack of 3, 20 cards/holder $ 18.99

## QUEST (QUS)

1004 Astra 1 hobby rocket kit ..... $ 6.99
1014 Big Betty hobby rocket kit ..... 9.99
2001 Evader cruise missle kit ..... 7.99
5721 Cyclone RTF rocket kit ..... 10.99
5740 A6-4 motor flight pack (3) ..... 5.99
5743 C6-3 motor flight pack (3) ..... 6.99
5744 C6-5 motor flight pack (3) ..... 6.99
7010 TigerTail II igniters (6) ..... 2.99
7021 Recovery wadding (100 sheets) ..... 2.99
7700 Complete launch system ..... 14.99

## RCA (RCA)

108 F-56 connector w/o-ring for TV coax ..... $ .49
AH-19 6' audio cable w/RCA plugs ..... 2.99
AH-211 25' audio cable w/RCA plugs ..... 6.99
ANT-1020 VHF TV/UHF TV/FM indoor antenna 19.99
RP-3710 AM/FM clock radio ..... 24.99
TA-25 25db VHF/UHF TV/FM distribution amp 19.99
VH-84 6' audio/video cable w/gold RCA plugs 5.99

## RF INQUIRY (RFI)

CF250E-UHF 250w 1.8-70 common mode filter $ 89.99
CF5KV-UHF 5kw 1.8-70 common mode filter 124.99

## RF PARTS (See Diamond)

## RAMSEY (RAM)

AA-7 Active antenna kit ..... $ 34.99
AR-1 Aircraft receiver kit ..... 34.99
CW-7 CMOS keyer kit .....Δ 24.99
DF-1 Foxhound direction finder kit ..... 69.99
FR-1 FM broadcast receiver kit ..... 29.99
HR-20 20m receiver kit ..... 34.99
HR-40 40m receiver kit ..... 34.99
QRP-20 20m CW transmitter kit ..... 34.99
QRP-40 40m CW transmitter kit ..... 34.99
RFS-1 RF sensed switch kit ..... 19.99
SCA-1 SCA decoder kit ..... 34.99
SR-2 Shortwave receiver kit ..... 39.99
TS-1 CW touch paddle switch kit .....Δ 6.99
UT-5 Universal timer kit ..... 9.99
VS-1 Voice activated switch kit ..... 9.99

## RANGER (RAN)

RCI-2950DX 10/12m 25w SSB/10w FM/AM/CW $269.99
RCI-2970DX 10/12m 150w SSB/50w FM/AM/CW 399.99
RCI-5054DX 6m 25w SSB/10w FM/AM/CW ... 269.99

## SGC (SGC)

04-01 SG-2000 150w 1.8-30 MHz 12v Xcvr 1569.99

## SGC - continued

AES Price

04-11 Std SG-2000 rem head/bkt/20' cable 589.99
04-15 Remote mobile head/mem ch's only 449.99
51-82 Fan kit for continuous duty xmit ..... 269.99
04-10 SG-2000 Xcvr w/DSP/PowerTalk head .. 1849.99
04-23 SG-2000 Xcvr/DSP/PowerTalk remoted 2099.99
52-34 RS-232 interface; SG-2000 Xcvr ..Δ 129.99
52-51 CA-1 High voltage feed wire Δ,per ft. .29
52-54 CA-2000 Rem head cable ..Δ,per ft. 1.99
53-04 PS-30 30A/40A peak unreg ps ....Δ 319.99
53-05 PS-50 50A/70A peak unreg ps ..... 419.99
52-61 PSC/12-1 12' ps cable, 1 plug .Δ 39.99
52-62 PSC/12-1 12' ps cable, 2 plugs Δ 49.99
05-01 SG-2020 Mini 20w PEP QRP Xcvr/mic .... 669.99
05-04 SG-2020 Mini 20w PEP QRP Xcv/mic/ADSP2 789.99
54-22 SG-239 200w Smartuner ..... 179.99
52-96 SG-500 1.8-24MHz 12v 500w PEP amp 1249.99
51-82 Fan kit for continuous duty xmit ..... 269.99
54-14 SG-230 200w 1.8-30 MHz 12v Smartuner 489.99
54-61 25' extension cable ..... 60.99
54-62 50' extension cable ..... 90.99
54-63 SmartLock; tuners made after 9/1/93 59.99
54-15 SG-235 500w 1.8-30MHz 12v Smartuner 1169.99
54-17 SG-231 HF+6m 12v Smartuner ..... 529.99
54-18 SG-237 100w PEP HF+6m mini Smartuner ... 359.99
54-19 SG-237 PCB only 100w PEP Smartuner 249.99
54-22 SG-239 200w Smartuner ..... 179.99
54-23 Stealth Kit SG-237 w/loop antenna ... 399.99
54-25 MAC-200 Smartuner/ant switch combo 359.99
55-04 SG-103 2-28 MHz 90' 150w dipole .Δ 199.99
55-06 SG-104 2-28 MHz 90' 1kw dipole ..... 599.99
55-27 SG-303 1.8-30 9' mobile whip & mt . 449.99
55-67 Replacement whip for SG-303 ..... 249.99
55-28 SG-307 1.8-60 7' mobile whip & mt . 449.99
55-47 QMS-2 Quick mt sys w/SG-230/303 whip 894.99
55-48 QMS-3 500w antenna system .....Δ 1999.99
55-49 QMS-7 Quick mt sys w/SG-231/307 whip 1199.99
55-50 QMS-37 Quick mt sys/SG-237, less whip 549.99
70-14 ADSP2 DSP noise reduction speaker .. 129.99

## SAMLEX (SAM)

SEC-1223 23A switching ps w/fan, 24A surge $ 99.99

## SANGEAN (SAN)

ATS-404 AM/FM/SW portable receiver w/case ... $ 79.99
ATS-505P AM/FM/SW portable receiver ..... 129.99
ATS-606A AM/FM/shortwave portable receiver 139.99
ATS-818 AM/FM/shortwave portable Rcvr ...D 179.99
ATS-818CS AM/FM/SW port Rcvr w/cassette D 219.99
ATS-909 AM/FM/shortwave portable Rcvr ..... 249.99
DT-200V AM/FM/VHF TV sound dig port Rcvr 69.99

## SEQUOIA (SEQ)

POCKET PC REF Pocket PC reference book ... $ 14.99
POCKET REF Pocket reference book ..... 12.99
WinRef 98-95 Windows pocket reference book 9.99

## SHAKESPEARE (SHA)

396-1 3 db, 5' VHF marine ant, less mount .. $ 59.99
5101 6 db, 8' VHF marine ant, less mount ... 49.99
5202 6db 8' VHF mar ant/chrome ferrule, less mt 69.99
5206-C Econo 8' VHF mar ant/chrome ferrule, no mt 39.99
495 White plastic lift & lay mount ..... 14.99
4187 Stainless steel ratchet mount ..... 36.99
420 3db, 5' VHF marine ant w/fold-down mt 59.99

## Smiley Antenna (SMI)

270A 2m/440 gain telescopic whip ..... $ 19.99
270A/SMA 2m/440 gain tele whip w/SMA ..... 19.99
5/8 SLD-2 2m ⅝ Slim Duck rubber ant ..... 17.99
5/8 SLD-220 220 ⅝ Slim Duck rubber ant ..... 17.99
5/8 SLD-440 440 ⅝ Slim Duck rubber ant ..... 17.99
5/8 SLD-2 Combo 2m ⅝ duck & stubby ant .. 24.99
5/8 SLD-220 Combo 220 ⅝ duck & stubby ant 24.99

## Smiley - continued

AES Price

5/8 SLD-440 Combo 440 ⅝ duck & stubby ant 24.99
FLX 1/2 WAV-2M ½ wv 2m BNC whip/flex coil 25.99
RD-2 2m rubber duck antenna ..... 14.99
RD-220 220 rubber duck antenna ..... 14.99
RDMD-2 2m mini rubber duck antenna ..... 14.99
RDMD-220 220 mini rubber duck antenna .Δ 7.99
RDMD-440 440 mini rubber duck antenna ... 14.99
RDS-2 2m stubby rubber duck antenna ..... 14.99
RDS-220 220 stubby rubber duck antenna ... 14.99
RDS-440 440 stubby rubber duck antenna ... 14.99
SD-2 2m Slim Duck thin rubber antenna ..... 14.99
SD-220 220 Slim Duck thin rubber antenna . 14.99
SL-440 440 slimline type duck ..... 12.99
SS-II Super Stick 2m ⅝ wv telescopic ant ..... 19.99
SS-III Super Stick 220 ⅝ wv telescopic ant .. 19.99
SS-IV Super Stick 440 ⅝ wv telescopic ant ... 19.99
SS-II/Combo 2m ⅝ wv telescopic & stubby ant 26.99
SS-III/Combo 220 ⅝ wv telescopic & stubby ant 26.99
SS-IV/Combo 440 ⅝ wv telescopic & stubby ant 26.99
TAQ-2 2m ¼ wave stainless whip ..... 10.99
TAQ-220 220 ¼ wave stainless whip ..... 10.99
TAQ-440 440 ¼ wave stainless whip ..... 10.99
TS Thin Stick 2m/220 ¾ wave telescopic whip 16.99

## SOLARCON (SOL)

A-99 10m/CB 17' 8" fiberglass base ant ..... $ 64.99
GPK-1 Ground plane radial kit ..... 39.99

## SONY (SON)

### SHORTWAVE

ICF-SW07 AM/FM/SW micro Rcvr w/ps ..... $399.99
ICF-SW11 AM/FM/SW compact receiver ..... 49.99
ICF-SW12 AM/FM/SW travel Rcvr/world clock ... 89.99
ICF-SW35 AM/FM/SW portable receiver ..... 89.99
ICF-SW40 AM/FM/SW port receiver ..... 119.99
ICF-SW77 AM/FM/SW portable receiver ..... 469.99
ICF-SW100S AM/FM/SW portable receiver ..... 349.99
ICF-SW1000T AM/FM/SW port Rcvr/cassette ... 399.99
ICF-SW7600GR AM/FM/SW portable receiver 179.99
AN-1 LW/MW/SW indoor/outdoor active rcv ant 99.99
AN-102 LW/MW/SW indoor active rcv ant ... 79.99
AN-LP1 Folding active loop ant w/case ..... 89.99
DCC-E260 Mobile DC adapter; ICF-SC1 .....D 9.99

## Super Antennas (SUA)

MP-1 Portable 150w 7-50Mhz antenna .....Δ $129.99
FT817MKT MP-1 mounting bkt for FT-817 Δ 14.99
MBKT MP-1 mob kit (4' whip & 2' base rod) Δ 9.99
MP-80 80m coil for MP-1 .....Δ 19.99
TRPD Tripod for MP-1 .....Δ 19.99

## SUPERIOR (SUP)

18640 Universal grip-type adjustable HT cradle .... $ 14.99
(HOU) CPM-310 6" adjustable pedestal mt .. 14.99

## Synthetic Textiles (SYN)

100' 3/32" black double braided rope ..... $ 7.99
100' 3/16 3/16" black double braided rope ..... 16.99
100' 5/16 5/16" black double braided rope ..... 22.99
350' 3/16" black double braided rope ..... 44.99

## TV GUARDIAN (TVG)

TV Guardian Foul language filter for TV/video $ 89.99

## Terk Technologies (TER)

AF-9330 Indoor AM/amplified FM tower ant .. $ 24.99
AF-9925 Indoor AM/amplified FM loop ant .D 39.99
AM-1000 Indoor passive fine-tunable AM ant 49.99
FM-50 Amplified indoor/outdoor FM ant kit.Δ 49.99
LF-20S 2.4GHz wireless video/audio system . 79.99
LF-IRX Remote control extender ..... 39.99
LF-30S 2.4GHz wireless vid/aud sys/rem features 99.99
MOD-41 Deluxe RF modulator/switch ..... 39.99


Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

## Terk - continued

| | AES Price |
|---|---|
| **PI-B** Indoor AM/amplified FM loop ant | 49.99 |
| **TSP-6** AC/TV/telephone surge protector | 29.99 |
| **TV-42** Clip-on mini dish mt amp TV ant; 2 LNB dish | 59.99 |
| **TV-55** Indoor/outdoor TV antenna | 89.99 |
| **TV-MAST** TV antenna mast mount kit .....D | 2.99 |
| **VR-1** TV volume regulator | 49.99 |
| **VS4-MOD** Deluxe 4 input RF modulator/switch | 49.99 |

## Times Microwave (TMS)

| | |
|---|---|
| **LMR-400** Standard ⅜" coax cable .....per ft. | $ .64 |
| **LMR-400** .....**500** ft. Roll | 249.99 |
| **LMR-400-DB** Watertight ⅜" coax cable per ft. | .74 |
| **LMR-400-DB** .....**500** ft. Roll | 299.99 |
| **LMR-400-UF** UltraFlex ⅜" coax cable ...per ft. | .98 |
| **LMR-400-UF** .....**500** ft. Roll | 399.99 |

## TIMEWAVE (TIM)

| | |
|---|---|
| **ANC-4** RF noise canceller | $209.99 |
| **AC-1** 12vdc 600 ma adapter | 15.99 |
| **AC-5** 12vdc 1.7A desktop ps | 24.99 |
| **DSP-599zx** All-mode DSP noise filter | 436.99 |
| **AC-5** 12vdc 1.7A desktop ps | 24.99 |
| **DSP-RTTY** RTTY prog; DSP-599zx/59Y .....D | 19.99 |
| **PK-96/100K** 9600 baud controller/128K RAM | 219.99 |
| (CSS) **PK-Term 99** Terminal prog; PK-96/232 | 79.99 |
| **AC-1** 12vdc 600 ma adapter | 15.99 |
| **AC-5** 12vdc 1.7A desktop ps | 24.99 |
| **PK-232/PSK** Multimode controller w/sound card | 531.99 |
| (CSS) **PK-Term 99** Terminal prog; PK-96/232 | 79.99 |
| **AC-5** 12vdc 1.7A desktop ps | 24.99 |
| **HSC-99** HamHub station controller | 349.99 |

## TRAXXAS (TRX)

| | |
|---|---|
| **2410** Bandit RTR electric buggy w/TQ radio .. | $129.99 |
| **3606** Stampede RTR electric monster truck w/ESC | 174.99 |
| **3706** Rustler RTR electric stadium truck w/ESC | 154.99 |
| **3710** Rustler RTR electric stadium truck w/TQ Tx | 134.99 |
| **3906** E-Maxx RTR electric monster truck | 334.99 |

## TRIPP LITE (TRI)

| | |
|---|---|
| **PV-140** 140w 12vdc-115vac inverter .....D | $ 39.99 |
| **PV-150** 150w 12vdc-115vac inverter | 42.99 |
| **PV-300** 300w 12vdc-115vac inverter .....D | 59.99 |
| **PV-375** 375w 12vdc-115vac inverter | 65.99 |
| **ISOBAR-8 ULTRA** 8 outlet surge suppress/LEDs | 79.99 |
| **SUPER-7** 7 outlet surge suppressor | 19.99 |
| **SUPER-7+TEL** 7 outlet/fax modem surge | 29.99 |

## TUBES (TUB)

| | |
|---|---|
| **6146W** Tube | $ 26.99 |
| **12BY7A** Tube | 12.99 |
| **3-500ZG-RFP** High dissipation tube (3-500Z) | 149.99 |
| **3-500Z** .....Δ | 199.99 |
| **572B** Tube | 49.99 |
| **811A** Tube | 19.99 |

## US TOWER (UST)

### FREE STANDING CRANK-UPS (not for T²X)

| | |
|---|---|
| **TX-438** 38' crank-up tower .....T | 979.99 |
| **TX-455** 55' crank-up tower .....T | 1579.99 |
| **TX-472** 72' crank-up tower .....T | 2459.99 |
| **TX-472MDP** 72' crank-up w/motor drive .....T | 3999.99 |
| **TX-489MDPL** 89' crank-up w/motor drive ...T | 6429.99 |
| **TX-3106MDPLSP** 106' crank-up/mot drive ...T | 11699.99 |

### FREE STANDING HD CRANK-UP TOWERS

| | |
|---|---|
| **HDX-538** 38' crank-up tower .....T | 1269.99 |
| **HDX-555** 55' crank-up tower .....T | 2269.99 |
| **HDX-572MDPL** 72' crank-up w/motor drive .T | 5899.99 |
| **HDX-589MDPL** 89' crank-up w/motor drive .T | 7699.99 |
| **HDX-689MDPL** 89' HD crank-up w/motor ....T | 14999.99 |
| **HDX-5106MDPL** 106' HD crank-up w/motor T | 15999.99 |

### COMPACT TMM (Top mt rotor for full retraction)

| | |
|---|---|
| **TMM-433SS** 33' crank-up tower .....T | 1139.99 |

## US Tower - continued

| | AES Price |
|---|---|
| **TMM-433HD** 33' HD crank-up tower .....T | 1379.99 |
| **TMM-541SS** 41' crank-up tower .....T | 1499.99 |

### ACCESSORIES FOR CRANK-UP TOWERS

| | |
|---|---|
| **CX-2** Coax arms (2) for 2-section tower | $ 55.99 |
| **CX-3** Coax arms (3) for 3-section tower | 77.99 |
| **CX-4** Coax arms (4) for 4-section tower | 109.99 |
| **CX-5** Coax arms (5) for 5-section tower | 149.99 |
| **CX-6** Coax arms (6) for 6-section tower | 190.99 |
| **HDP** Service platform .....T | 813.99 |
| **STS-4** Rotor accessory for TX/TMM towers ...T | 211.99 |
| **IV-16** Inverted vee arm for MA's | 41.99 |
| **M-5** 2" OD 5' mast extension for MA's | 40.99 |
| **M-10** 2" OD 10' mast .....T | 77.99 |
| **M-15** 2" OD 15' mast .....T | 109.99 |
| **M-20** 2" OD 20' mast .....T | 136.99 |
| **M-15R** 2" OD 15' reinforced mast .....T | 156.99 |
| **M-20R** 2" OD 20' reinforced mast .....T | 207.99 |
| **CM-20** 2" OD 20' cromolly mast .....T | 449.99 |
| **MD-75** Heavy duty 1 HP motor drive .....T | 997.99 |
| **MDP-750*** Pull-down drive; TX-472/HDX-555 T | 1549.99 |
| **MDPL-1000*** Pull-down drive; HDX-572 .....T | 2106.99 |

*Requires MCL-100 or RMC-1000. MDP-750 and MDPL-1000 not sold separately

| | |
|---|---|
| **MRF** Mast raising fixture | 268.99 |
| **MCL-100** Limit switch package | 465.99 |
| **RMC-1000** Remote control w/limit switch | 997.99 |
| **RP-3** Rotor plate for 10" section | 39.99 |
| **RP-4** Rotor plate for 12½" section | 47.99 |
| **RP-5** Rotor plate for 15" section | 52.99 |
| **TRX-80** Raising fixture; TX-438/455;HDX-538/555 T | 434.99 |
| **TRX-80HD** Raising fixture;TX-472/489;HDX-572/589 T | 569.99 |
| **TRX-100HD** Raising fixture; HDX-689/5106 T | 799.99 |
| **TB-2US** Thrust bearing; 2" mast w/2 flange holes | 104.99 |

### MA-SERIES TUBULAR TOWERS

| | |
|---|---|
| **MA-40** 40' crank-up mast .....T | $849.99 |
| **MA-550** 55' crank-up mast .....T | 1399.99 |
| **MA-550MDP** 55' crank-up mast w/motor ....T | 2729.99 |
| **MA-770*** 70' crank-up mast .....T | 2359.99 |
| **MA-770MDP*** 70' crank up mast w/motor ..T | 3729.99 |
| **MA-850*** 85' crank-up mast .....T | 3649.99 |
| **MA-850MDP*** 85' crank-up mast w/motor ..T | 5029.99 |

*Requires MAB or MARB-series base

### MA-SERIES ACCESSORIES

| | |
|---|---|
| **CX-2M** Coax arms (2) for MA-40 | $ 59.99 |
| **CX-3M** Coax arms (3) for MA-550 | 88.99 |
| **CX-4M** Coax arms (4) for MA-770 | 133.99 |
| **CX-5M** Coax arms (5) for MA-850 | 159.99 |
| **MAB-40** Hinged base for MA-40 .....T | 359.99 |
| **MAB-550** Hinged base for MA-550 .....T | 429.99 |
| **MAB-770** Hinged base for MA-770 .....T | 522.99 |
| **MAB-850** Hinged base for MA-850 .....T | 633.99 |
| **MAF-40** Raising fixture for MA-40 | 219.99 |
| **MAF-550** Raising fixture for MA-550 .....T | 299.99 |
| **MAF-770** Raising fixture for MA-770 .....T | 311.99 |
| **MAF-850** Raising fixture for MA-850 .....T | 412.99 |
| **MARB-40** Rotor base accessory for MA-40 ..T | 549.99 |
| **MARB-550** Rotor base accessory for MA-550 T | 649.99 |
| **MARB-770** Rotor base accessory for MA-770 T | 774.99 |
| **MARB-850** Rotor base accessory for MA-850 T | 916.99 |

**All US TOWER products are drop-shipped (shipped direct to you from the US TOWER factory). On these factory drop-shipments we prefer payment in full with order, however, we will accept your credit card with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your drop-shipped merchandise. Shipment is FOB Visalia, California via truck, COD for freight charges only. Freight charges will be collected upon delivery by the carrier. Please allow sufficient time for delivery on these special order products. Most truck lines will not unload the tower for you, so please be sure to have enough manpower and/or equipment on hand when your tower is delivered by the carrier.**

## US Tower - continued

| | AES Price |
|---|---|

## UNADILLA (See W2AU)

## UNIDEN (UNI)

| | |
|---|---|
| **PC-68LTW** AM Mobile CB w/WX alert | $ 99.99 |
| **PC-68XL** AM Mobile CB | 79.99 |
| **PC-78LTW** AM Mobile CB w/WX alert | 119.99 |
| **PC-78XL** AM Mobile CB | 99.99 |
| **PRO-510XL** AM Mobile CB | 39.99 |
| **PRO-520XL** AM Mobile CB | 54.99 |
| **PRO-538W** AM Mobile CB w/WX | 59.99 |

### UNIDEN BEARCAT

| | |
|---|---|
| **BC-244CLT** 30 ch scanner w/instant WX | $ 99.99 |
| **BC-248CLT** 50 ch scanner w/WX alert | 109.99 |
| **BC-278CLT** 100 ch scanner/SAME WX alert .. | 169.99 |
| **BC-350A** 50 ch prog/service search w/AC ps | 109.99 |
| **BC-785D** 1000 ch scanner/trunk/SAME WX ... | 369.99 |
| **BCI-25D** Digital board for BC-785D | 299.99 |
| **BC-780XLT** 500 ch scanner/trunk/SAME WX . | 299.99 |
| **BC-895XLT** 300 ch prog scanner/trunking | 199.99 |
| **BCT-7** Pre-prog warning scan/air/800/AC ps | 169.99 |
| **BC-003** Switch box for BC-002 .....Δ | 4.99 |
| **BC-60XLT-1** 30ch prog pocket; use AA batts . | 89.99 |
| **BC-80XLT** 50 ch prog pocket scanner/800 | 119.99 |
| **UA-502** Cig power cord | 11.99 |
| **AD-100** AC adapter/batt cgr; earlier scanners Δ | 9.99 |
| **AD-140** Extra charger; BC-100XLT/200XLT .Δ | 13.99 |
| **BP-200** Extra battery; BC-200XLT | 26.99 |
| **BP-205** Extra battery; BC-100XLT | 26.99 |
| **SC-180B** 100 ch sport pocket/800 MHz | 169.99 |
| **SC-200** 200 ch sport pocket/800 MHz | 199.99 |
| **AD-70** Extra charger | 10.99 |
| **BP-120** Extra battery | 18.99 |
| **LC-120** Carrying case; BC120XLT/230XLT .. | 19.99 |
| (KOS) **QZ/99** Noise reduction headphones . | 59.99 |
| **UA-502** Cig power cord | 11.99 |
| **BC-245XLT** 300 ch pocket/trunk/smart scan | 219.99 |
| **AD-70** Extra charger | 10.99 |
| **BP-180** Extra battery | 16.99 |
| **CRX-120** Desk charger; BC-245XLT | 24.99 |
| **LC-120** Carrying case | 19.99 |
| **UA-502** Cig power cord | 11.99 |
| **BC-250D** 1000 ch pocket/trunk/SAME WX | 369.99 |
| **BCI-25D** Digital board for BC-250D | 299.99 |
| **BP-250** Extra battery | 14.99 |
| **WX-500** SAME weather/hazard alert/ps .....D | 39.99 |
| **BP-2500** Extra batt; BC2500/3000 .....Δ | 63.99 |
| **LC-150B** Carrying case; SC-150B .....Δ | 2.99 |
| **RFD-001** IN/IL/KY/OH/MI/WI freq book .....Δ | 4.99 |
| **Atlantis** 5w VHF marine handheld .....D | 99.99 |
| **HH-940P** 1w submersible VHF marine HH .....D | 99.99 |
| **Voyager** 5w VHF marine handheld/lith ion batt | 159.99 |
| **Polaris** 25w VHF marine Xcvr w/hailer | 179.99 |
| **Solara** 25w 90 ch VHF marine Xcvr | 99.99 |
| **Oceanus** 25w 90 ch VHF marine Xcvr .....D | 129.99 |

## Unified Microsystems (UNM)

| | |
|---|---|
| **VK-64** CW/voice keyer | $229.99 |
| **KC-4** CW cable for VK-64 to transceiver | 9.99 |
| **VKC-8** 8-pin audio cable for VK-64 to Xcvr | 24.99 |
| **XT-4** Small size CW memory keyer | 69.99 |
| **KC-4** CW cable for XT-4 to transceiver | 9.99 |
| **W9XT** Contest card for IBM PC & compatible | 139.99 |
| **CCC-8** 8-pin mic contest card cable semi-kit | 44.99 |

## UNI-SOLAR (UNS)

| | |
|---|---|
| **USF-5**/FLX-5 5w flexible solar cell | $ 89.99 |
| **USF-32**/FLX-32 32w flexible solar cell | 269.99 |

AES Price

## Universal Towers (UNT)

| | | |
|---|---|---|
| **4-30** | 4 sq ft wind load 30' alum tower .....T | $325.99 |
| **9-30** | 9 sq ft wind load 30' alum tower .....T | 438.99 |
| **12-30** | 12 sq ft wind load 30' alum tower ....T | 576.99 |
| **21-30** | 21 sq ft wind load 30' alum tower ....T | 679.99 |
| **23-30** | 23 sq ft wind load 30' alum tower ....T | 899.99 |
| **35-30** | 35 sq ft wind load 30' alum tower ....T | 1019.99 |
| **4-40** | 4 sq ft wind load 40' alum tower .....T | 539.99 |
| **7-40** | 7 sq ft wind load 40' alum tower .....T | 679.99 |
| **9-40** | 9 sq ft wind load 40' alum tower .....T | 759.99 |
| **12-40** | 12 sq ft wind load 40' alum tower ....T | 899.99 |
| **15-40** | 15 sq ft wind load 40' alum tower ....T | 1013.99 |
| **21-40** | 21 sq ft wind load 40' alum tower ....T | 1119.99 |
| **23-40** | 23 sq ft wind load 40' alum tower ....T | 1339.99 |
| **4-50** | 4 sq ft wind load 50' alum tower .....T | 769.99 |
| **5-50** | 5 sq ft wind load 50' alum tower .....T | 869.99 |
| **7-50** | 7 sq ft wind load 50' alum tower .....T | 979.99 |
| **9-50** | 9 sq ft wind load 50' alum tower .....T | 1089.99 |
| **15-50** | 15 sq ft wind load 50' alum tower ....T | 1449.99 |
| **16-50** | 16 sq ft wind load 50' alum tower ....T | 1569.99 |
| **4-60** | 4 sq ft wind load 60' alum tower .....T | 1089.99 |
| **6-60** | 6 sq ft wind load 60' alum tower .....T | 1339.99 |
| **7-60** | 7 sq ft wind load 60' alum tower .....T | 1429.99 |
| **9-60** | 9 sq ft wind load 60' alum tower .....T | 1529.99 |
| **3-70** | 3 sq ft wind load 70' alum tower .....T | 1379.99 |
| **4-70** | 4 sq ft wind load 70' alum tower .....T | 1749.99 |
| **6-70** | 6 sq ft wind load 70' alum tower .....T | 1779.99 |
| **7-70** | 7 sq ft wind load 70' alum tower .....T | 1869.99 |
| **3-80** | 3 sq ft wind load 80' alum tower .....T | 1919.99 |
| **4-80** | 4 sq ft wind load 80' alum tower .....T | 2229.99 |
| **2-90** | 2 sq ft wind load 90' alum tower .....T | 2299.99 |
| **B-14** | Base for tower ..... | 65.99 |
| **B-18** | Base for tower ..... | 65.99 |
| **B-22** | Base for tower ..... | 103.99 |
| **B-26** | Base for tower ..... | 132.99 |
| Extra **14" stubs** (between base & tower) | .set | 14.99 |
| Extra **18" stubs** (between base & tower) | .set | 26.99 |
| Extra **22" stubs** (between base & tower) | .set | 42.99 |
| Extra **26" stubs** (between base & tower) | .set | 42.99 |
| Extra **30" stubs** (between base & tower) | .set | 63.99 |
| **RFM-11** | Flat roof mt for guyed tower ..... | 46.99 |
| **RFM-14** | Flat roof mt for guyed tower ..... | 46.99 |
| **RFM-18** | Flat roof mt for guyed tower ..... | 69.99 |
| **RFM-22** | Flat roof mt for guyed tower ..... | 97.99 |
| **RFM-26** | Flat roof mt for guyed tower ..... | 129.99 |
| **R-11** | Rotor mount ..... | 31.99 |
| **R-14** | Rotor mount ..... | 46.99 |
| **R-18** | Rotor mount ..... | 62.99 |

**SEE LITERATURE FOR TOWER CONFIGURATIONS**

| | | |
|---|---|---|
| **11 Top** | 11" top tower section .....T | 110.99 |
| **14 Top** | 14" top tower section .....T | 138.99 |
| **18 Top** | 18" top tower section .....T | 252.99 |
| **14 Taper** | 14" taper tower section .....T | 122.99 |
| **18 Taper** | 18" taper tower section .....T | 219.99 |
| **22 Taper** | 22" taper tower section .....T | 327.99 |
| **26 Taper** | 26" taper tower section .....T | 440.99 |
| **11 Straight** | 11" straight tower section .....T | 108.99 |
| **14 Straight** | 14" straight tower section .....T | 122.99 |
| **18 Straight** | 18" straight tower section .....T | 219.99 |
| **22 Straight** | 22" straight tower section .....T | 327.99 |
| **26 Straight** | 26" straight tower section .....T | 440.99 |
| **HD35-40** | 35 sq ft wind load 40' alum tower T | 1569.99 |
| **HD21-50** | 21 sq ft wind load 50' alum tower T | 1669.99 |
| **HD9-60** | 9 sq ft wind load 60' alum tower ...T | 1759.99 |
| **HD16-60** | 16 sq ft wind load 60' alum tower T | 2119.99 |
| **HD21-60** | 21 sq ft wind load 60' alum tower T | 2229.99 |
| **HD8-70** | 8 sq ft wind load 70' alum tower ...T | 1979.99 |

## Universal - continued

AES Price

| | | |
|---|---|---|
| **HD12-70** | 12 sq ft wind load 70' alum tower T | 2449.99 |
| **HD17-70** | 17 sq ft wind load 70' alum tower T | 2669.99 |
| **HD21-70** | 21 sq ft wind load 70' alum tower T | 2779.99 |
| **HD8-80** | 8 sq ft wind load 80' alum tower ...T | 2529.99 |
| **HD9-80** | 9 sq ft wind load 80' alum tower ...T | 2639.99 |
| **HD11-80** | 11 sq ft wind load 80' alum tower T | 2999.99 |
| **HD12-80** | 12 sq ft wind load 80' alum tower T | 2999.99 |
| **HD16-80** | 16 sq ft wind load 80' alum tower T | 3219.99 |
| **HD4-90** | 4 sq ft wind load 90' alum tower ...T | 2629.99 |
| **HD8-90** | 8 sq ft wind load 90' alum tower ...T | 3109.99 |
| **HD11-90** | 11 sq ft wind load 90' alum tower T | 3549.99 |
| **HD4-100** | 4 sq ft wind load 100' alum tower T | 3529.99 |
| **HD8-100** | 8 sq ft wind load 100' alum tower T | 3779.99 |
| **B-30** | Base for HD tower ..... | 207.99 |
| **RFM-30** | Flat roof mt for guyed tower ..... | 180.99 |
| **1-5/8SC** | Flange bearing ..... | 98.99 |
| **2-3/16SC** | Flange bearing ..... | 109.99 |
| **Top Plate** | Flange plate welded to top section | 23.99 |

**SEE LITERATURE FOR TOWER CONFIGURATIONS**

| | | |
|---|---|---|
| **30 Taper** | 30" taper tower section .....T | 554.99 |
| **30 Straight** | 30" straight tower section .....T | 554.99 |
| **1-1/4" OD x 5 ft** | aluminum mast .....T | 23.99 |
| **1-1/4" OD x 10 ft** | aluminum mast .....T | 33.99 |
| **1-1/2" OD x 10 ft** | aluminum mast .....T | 41.99 |
| **2" OD x 8 ft** | aluminum mast ..... | 49.99 |
| **2" OD x 16 ft** | aluminum mast .....T | 95.99 |

**All UNIVERSAL TOWERS products are drop-shipped (shipped direct to you from the UNIVERSAL TOWERS factory). On these factory drop-shipments we prefer payment in full with order, however, we will accept your credit card with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your drop-shipped merchandise. Shipment is FOB Mt. Clemens, Michigan via truck, COD for freight charges only. Freight charges will be collected upon delivery by the carrier. Please allow sufficient time for delivery on these special order products. Most truck lines will not unload the tower for you, so please be sure to have enough manpower and/or equipment on hand when your tower is delivered by the carrier.**

## VALOR (See PRO AM)

## VANCO (VCO)

| | | |
|---|---|---|
| **370052** | 3½ digit multimeter ..... | $ 19.99 |
| **HF-24RS** | Scanner headphones w/dual volume | 19.99 |
| **SWR-1** | SWR/field strength meter ..... | 19.99 |
| **SWR-3** | Mini SWR meter ..... | 14.99 |

## VAN GORDEN (VAN)

| | | |
|---|---|---|
| **Hi-Q 1:1** | balun ..... | $ 14.99 |
| **Hi-Q 4:1** | balun ..... | 14.99 |
| **Antenna center** | insulator ..... | 6.99 |
| **Antenna end** | insulator .....pair | 4.99 |
| **Dog bone** | type antenna insulator .....each | .99 |
| **NR-100** | Nylon antenna guy rope .....100 ft. | 4.99 |
| **NR-1000** | Nylon ant guy rope .....1000 ft. | 44.99 |
| **D-80** | 80m 130' wire dipole antenna ..... | 32.99 |
| **SD-80** | Short 90' 80m dipole ..... | 36.99 |
| **D-40** | 40m 66' wire dipole antenna ..... | 29.99 |
| **SD-40** | Short 45' 40m dipole ..... | 34.99 |
| **D-20** | 20m 33' wire dipole antenna ..... | 28.99 |
| **D-15** | 15m 22' wire dipole antenna ..... | 27.99 |
| **D-10** | 10m 16' wire dipole antenna ..... | 26.99 |
| **All Bander** | Dipole 160-10m (use tuner) 135' ant | 29.99 |
| **Shorty** | All Bander 160-10m (use tuner) 70' ant | 44.99 |
| **G5RV** | Flat-top 3.5-30 102' ant/xmfr/100' cable | 50.99 |
| **G5RV-E** | Flat-top 3.5-30 102' ant/31' twinlead | 28.99 |
| **G5RV JR** | Flat-top 7-30 52' ant/17' twinlead . | 24.99 |
| **G5RV-M** | Flat-top 1.8-30 204' ant/65' twinlead | 50.99 |
| **N connector** | Type N connector for 9913/8214 | 4.99 |
| **#14** | Stranded hard drawn ant wire ....**100** ft. | 11.99 |

## Van Gorden - continued

AES Price

| | | |
|---|---|---|
| **#14** | Stranded hard drawn ant wire ....**150** ft. | 16.99 |
| **300 ohm** | 1kw transmitting twinlead ...**100** ft. | 19.99 |
| **450 ohm** | 18ga solid ladderline .....**100** ft. | 14.99 |
| **450 ohm** | 18ga solid ladderline .....**1000** ft. | 109.99 |
| **450 ohm 14ga** | stranded ladderline .....**100** ft. | 29.99 |
| **450 ohm 14ga** | stranded ladderline ...**1000** ft. | 229.99 |
| (WA1) WA1FFL **Ladder-Loc** | 450 ohm ctr ins | 12.99 |
| **RG-213** | Non-contaminating .....per ft. | .49 |
| **RG-213/500** | Non-contaminating .500 ft. Roll | 179.99 |
| **8X-1.5ST** | 1.5' RG-8X coax/silver teflon PL259s | 7.99 |
| **8X-3ST** | 3' RG-8X coax/silver teflon PL259s ... | 8.99 |
| **8X-6ST** | 6' RG-8X coax/silver teflon PL259s ... | 10.99 |
| **8X-12ST** | 12' RG-8X coax/silver teflon PL259s | 11.99 |
| **8X-25ST** | 25' RG-8X coax/silver teflon PL259s | 15.99 |
| **8X-50ST** | 50' RG-8X coax/silver teflon PL259s | 24.99 |
| **8X-75ST** | 75' RG-8X coax/silver teflon PL259s | 31.99 |
| **8X-100ST** | 100' RG-8X coax/silver teflon PL259s | 37.99 |
| **213-25ST** | 25' RG-213 coax/silver teflon PL259s | 25.99 |
| **213-50ST** | 50' RG-213 coax/silver teflon PL259s | 38.99 |
| **213-75ST** | 75' RG-213 coax/silver teflon PL259s | 54.99 |
| **213-100ST** | 100' RG-213 coax/silver teflon PL259s | 72.99 |

## VECTRONICS (VEC)

| | | |
|---|---|---|
| **VC-300M** | 300w mobile antenna tuner ..... | $ 99.99 |
| **VC-300DLP** | 300w antenna tuner ..... | 149.99 |
| **VC-300D** | 300w digital antenna tuner ..... | 179.99 |
| **HFT-1500** | 1.5kw antenna tuner ..... | 399.99 |
| **AT-100** | .3-30 MHz active antenna/tuner ..... | 79.99 |
| **HPF-1** | High pass filter, 75 or 300 ohms ..... | 24.99 |
| **HPF-2** | Deluxe high pass filter, 75 or 300 ohms | 29.99 |
| **LP-30** | 1.5kw low pass filter ..... | 69.99 |
| **LP-2500** | 2.5kw low pass filter ..... | 129.99 |
| **CK-200** | Deluxe keyer .....Δ | 59.99 |
| **DL-300M** | 300w 150MHz dummy load ..... | 44.99 |
| **DL-650M** | 1.5kw 650MHz dummy load ..... | 74.99 |
| **DL-2500** | 2.5kw 150MHz dummy load ..... | 179.99 |
| **PM-30HF** | 300/3kw HF wattmeter ..... | 79.99 |
| **PM-30UV** | 30/300w VHF/UHF wattmeter ..... | 89.99 |
| **121K** | Crystal radio set kit ..... | 19.99 |
| **131K** | Aircraft receiver kit ..... | 29.99 |
| **201K** | CW keyer kit ..... | 24.99 |
| **412K** | Nicad/NiMH battery conditioner kit ...Δ | 34.99 |
| **422K** | FM broadcast SCA decoder kit ..... | 27.99 |
| **830K** | Super SSB audio filter kit ..... | 19.99 |
| **841K** | Tunable SSB/CW audio filter kit ..... | 34.99 |
| **1140K** | 40m receiver kit ..... | 29.99 |
| **1240K** | 40m QRP CW transmitter kit ..... | 29.99 |
| **1290K** | AM radio transmitter kit ..... | 29.99 |
| **1294K** | TV transmitter kit ..... | 27.99 |
| **1402K** | 2m preamp kit .....Δ | 14.99 |

## VELLEMAN (VEL)

| | | |
|---|---|---|
| **DVM-810** | 3½ digit digital multimeter ..... | $ 9.99 |
| **DVM-850BL** | Deluxe 3½ digit DMM w/holder ... | 19.99 |
| **VT-COAX** | Coax stripper; RG-58/59/62/6 ..... | 14.99 |
| **VT-TS** | 25-piece hobbyist tool set ..... | 9.99 |

## VIBROPLEX (VIB)

| | | |
|---|---|---|
| **090** | Original Gold Bug ..... | $309.99 |
| **100** | Original Presentation Super deluxe bug | 269.99 |
| **105** | Original Deluxe Bug ..... | 199.99 |
| **110** | Original Standard Bug ..... | 169.99 |
| **113** | VibroKeyer Gold Paddle ..... | 279.99 |
| **115** | VibroKeyer Deluxe Paddle ..... | 184.99 |
| **120** | VibroKeyer Standard Paddle ..... | 149.99 |
| **123** | Iambic Gold Paddle ..... | 279.99 |
| **125** | Iambic Presentation Paddle ..... | 249.99 |
| **130** | Iambic Deluxe Paddle ..... | 189.99 |
| **135** | Iambic Standard Paddle ..... | 149.99 |
| **145** | Triangular Brass Racer Iambic paddle . | 129.99 |
| **150** | Square Brass Racer Iambic paddle ..... | 139.99 |


Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aeshom.com

## Vibroplex - continued

| | AES Price |
|---|---|
| **153** Gold straight key | 279.99 |
| **155** Standard straight key | 149.99 |
| **160** Deluxe straight key | 189.99 |
| **162** Gold Hand key/Iambic Paddle double | 369.99 |
| **163** Gold Hand key/VibroKeyer Paddle double | 369.99 |
| **165** Deluxe Hand key/Iambic Paddle double | 329.99 |
| **170** Dlx Hand key/VibroKeyer Paddle double | 329.99 |
| **175** Standard Hand key/Iambic Paddle double | 279.99 |
| **180** Std Hand key/VibroKeyer Paddle double | 279.99 |
| **185** Square Racer Deluxe Iambic paddle | 129.99 |
| **190** Square Racer Standard Iambic paddle | 109.99 |
| **195** Blue Racer 2000 Std Millennium Bug | 189.99 |
| **198** Blue Racer 2000 Dlx Millennium Bug | 209.99 |
| **200** Code Warrior Junior Paddle | 99.99 |

## WA1FFL (WA1)

| | |
|---|---|
| **Ladder-Loc** 450 ohm ladderline center attach | $ 12.99 |

## W2AU (Unadilla) (W2A)

| | |
|---|---|
| **W2AU 1:1** 160-10m balun, lightning arrestor | $ 24.99 |
| **W2AU 4:1** 160-10m balun, lightning arrestor | 24.99 |
| **W2AU Beam** Balun, 1:1 | 24.99 |
| **W2DU-HF** 1:1 1.8-30 MHz choke balun | 26.99 |
| **W2DU-VHF** 1:1 30-250 MHz choke balun | 26.99 |
| **W2DU Beam** Balun 40-10m 1:1 choke balun | 26.99 |
| **HA** AN-sulator center insulator | 9.99 |
| **HE** END-sulator end insulators | pair 6.99 |
| **KW-80CW** Reyco 80m CW ant traps | pair 48.99 |
| **KW-80F** Reyco 75m phone ant traps | pair 48.99 |
| **KW-40** Reyco 40m antenna traps | pair 42.99 |
| **KW-30** Reyco 30m antenna traps | pair 42.99 |
| **KW-20** Reyco 20m antenna traps | pair 41.99 |
| **KW-17** Reyco 17m antenna traps | pair 41.99 |
| **KW-15** Reyco 15m antenna traps | pair 41.99 |
| **KW-12** Reyco 12m antenna traps | pair 41.99 |
| **KW-10** Reyco 10m antenna traps | pair 41.99 |
| **W2AU/W2VS** 5-band ant kit (use tuner) | 85.99 |

## W5YI (W5Y)

| | |
|---|---|
| **BCOM** Basic Communications Electronics book | $ 17.99 |
| **BDIG** Basic Digital Electronics book | 17.99 |
| **BELC** Basic Electronics book | 17.99 |
| **ECS-02** Extra upgrade software/manual/code | 39.99 |
| **GROL** Commercial license elements 1/3/8 manual | 39.99 |
| **GRSP** Commercial study software w/GROL book | 69.99 |
| **GSTD** Getting Started in Electronics book | 17.99 |
| **GUS** General upgrade software/manual/code | 34.99 |
| **GW05** Gordon West 6 ea 0-5 wpm code tapes | 29.99 |
| **GW13** Gordon West 6 ea 5-16 wpm code tapes | 29.99 |
| **GW20** Gordon West 6 ea 10-28 wpm code tapes | 29.99 |
| **GWEM-02** Gordon West Extra study manual | 19.99 |
| **GWEW-02** Gordon West 6 ea Extra theory tapes | 29.99 |
| **GWGM** Gordon West General study manual | 12.99 |
| **GWGW** Gordon West 4 ea General theory tapes | 19.99 |
| **GWTM-03** Gordon West Tech study manual | 15.99 |
| **GWTW-03** Gordon West 6 ea Tech theory tapes | 29.99 |
| **HOS-03** Ham operator software/code (all classes) | 39.99 |
| **HOSB-03** Ham op soft/code/3 books (all classes) | 69.99 |
| **NCS-03** Technician software w/manual | 39.99 |
| **TPG-03** Tech/General software/manuals/code | 54.99 |
| **WMC** 0-48 wpm code software | 14.99 |

## WAHL (WAH)

| | |
|---|---|
| **7740** Quick charge cordless soldering iron kit | $ 47.99 |
| **7971** 30 minute butane soldering iron | 19.99 |
| **7974** 120 minute butane soldering iron | 27.99 |

## Watson Guptill (WAT)

| | |
|---|---|
| **059677** 2003 World Radio TV Handbook D | $ 24.95 |
| **059685** 2004 World Radio TV Handbook | 29.95 |

## WELLER (WEL)

| | |
|---|---|
| **7200PK** 75w soldering gun kit | $ 28.99 |

## Weller - continued

| | AES Price |
|---|---|
| **7235** Extra standard tips (2) for 7200PK | 3.99 |
| **SP-23LK** 25w soldering iron kit | 17.99 |
| **WP-25** 25w professional soldering iron | 34.99 |
| **ST-4** 3/16" screwdriver tip for WP-25 | 4.99 |
| **ST-5** 1/32" single flat tip for WP-25 | 4.99 |
| **W-60P** 60w temp controlled soldering iron | 64.99 |
| **CT-5E7** 1/4" screwdriver tip for W-60P | 6.99 |
| **WESD51** 50w adjustable soldering station | 149.99 |
| **WSTA3** Pyropen portable LP soldering iron | 99.99 |
| **WST2** Pyropen Jr. portable butane iron | 89.99 |
| **WTCPT** 60w temp controlled soldering stn | 119.99 |

## West Mtn Radio (WES)

| | |
|---|---|
| **RB/PR/C** Rigblaster Pro; 8-pin/RJ-45 | $249.99 |
| **RB/PL/C** Rigblaster Plus; 8-pin/RJ-45 | 139.99 |
| **RB/M8/C** Rigblaster; 8-pin/RJ-45 | 109.99 |
| **RB/NO/8C** Rigblaster nomic for 8-pin radios | 59.99 |
| **RB/NO/RJC** Rigblaster nomic for RJ-45 radios | 59.99 |
| **RB/NO/FT100** Rigblaster nomic; Yae modular 6 | 59.99 |
| **RR/4010S/C** Rigrunner FET 9outlet/cbl/connectors | 119.99 |
| **RR/4012/C** Rigrunner 40A 12outlet/cbl/connectors | 112.99 |
| **RR/4008/C** Rigrunner 40A 8outlet/cbl/connectors | 92.99 |
| **RR/4005/C** Rigrunner 40A 5outlet/cbl/connectors | 59.99 |
| **C30/PK/12** 12pr PowerPole 30A connectors | 10.99 |
| **CR/Tool** Gardner Bender forged crimp tool | 9.99 |

## WILSON (WIL)

| | |
|---|---|
| **FGT-4/BLK** 4' black figerglass CB whip | $ 27.99 |
| **FGT-4/WHT** 4' white figerglass CB whip | 27.99 |
| **Little Wil** Magnetic mt CB antenna | 31.99 |
| **Trucker 2000** Black mobile 3/8-24 CB whip | 54.99 |
| **W-1000 Magnet**ic Black mobile CB antenna | 76.99 |
| **W-1000 Roof** Top Black mobile CB antenna | 57.99 |
| **W-1000 Trunk** Lip Black mobile CB antenna | 65.99 |

## WINEGARD (WIN)

| | |
|---|---|
| **CX-0625** 25' RG-6 TV coax w/F connectors | $ 10.99 |
| **CX-0650** 50' RG-6 TV coax w/F connectors | 15.99 |
| **CX-0675** 75' RG-6 TV coax w/F connectors | 19.99 |
| **CX-6100** 100' RG-6 TV coax w/F connectors | 24.99 |
| **PR-7010** 22 el 66.5" boom Prostar TV ant | 39.99 |
| **PR-7032** 33 el 103.25" boom Prostar TV ant | 64.99 |
| **PR-7042** 43 el 149.75" boom Prostar TV ant | 99.99 |
| **TV-2900** Outdoor TV matching transformer | 2.99 |

## YAESU (YAE)

| | |
|---|---|
| **FT-1000MP Mk V** 200w HF Xcvr/EDSP/tuner/ps | 2699.99 |
| **Mk V Field** 100w HF Xcvr/EDSP/tuner/ps | 2179.99 |
| **DVS-2** Digital voice recording module | 219.99 |
| **FH-1** Remote control keypad | 88.99 |
| **FTV-1000** 200w 6m transverter; Mk V | 899.99 |
| **FP-29** 30vdc ps; FTV-1000 w/orig MP/Field | 499.99 |
| **FRB-5** Relay board; FTV-1000 w/orig MP | 50.99 |
| **MD-100A8X** Desk mic w/tone control | 129.99 |
| **MD-200A8X** Deluxe high fidelity desk mic | 379.99 |
| **MH-31B8** Extra hand microphone | 39.99 |
| **SP-8** External speaker w/filters | 159.99 |
| **LL-7** Phone patch unit for SP-8 | 139.99 |
| **TCXO-6** Deluxe TCXO unit, 0.5 ppm | 174.99 |
| **YF-110CN** 250 Hz 3rd IF main Rcvr CW filt | 144.99 |
| **YF-110SN** 2 KHz 3rd IF main Rcvr SSB filt | 144.99 |
| **YF-114CN** 250 Hz 2nd IF main Rcvr CW filt | 144.99 |
| **YF-114SN** 2 KHz 2nd IF main Rcvr SSB filt | 144.99 |
| **YF-115C** 500 Hz CW Collins mech filter | 159.99 |
| **YH-77STA** Open-air type stereo headphones | 51.99 |
| **FT-1000D** Deluxe HF Xcvr/ps D | 3999.99 |
| **DVS-2** Digital voice recording module | 219.99 |
| **FIF-232C** Interface for RS-232 | 95.99 |
| **MD-100A8X*** Desk mic w/tone control | 129.99 |
| *Cable needed for FT-1000D; contact service for info | |
| **MD-200A8X** Deluxe high fidelity desk mic | 379.99 |
| **SP-5** External spkr w/audio filter | 144.99 |
| **LL-5** Phone patch unit for SP-5 | 129.99 |

## Yaesu - continued

| | AES Price |
|---|---|
| **YF-110CN/XF-F** 250 Hz CW xtal filter (455 KHz) | 144.99 |
| **YH-77STA** Open-air type stereo headphones | 51.99 |
| **FT-920** 9-band Xcvr/AF-DSP/tuner/6m/kyr | 1199.99 |
| **FM-1 FM unit FREE with FT-920! Limited Time!** | |
| **FP-1023** 23A switching ps w/fan, 25A surge | 159.99 |
| **FP-1030A** 25A ps, 30A surge w/meters | 249.99 |
| **FM-1** FM unit | 62.99 |
| **MD-100A8X** Desk mic w/tone control | 129.99 |
| **MD-200A8X** Deluxe high fidelity desk mic | 379.99 |
| **SP-8** External speaker w/filters | 159.99 |
| **LL-7** Phone patch unit for SP-8 | 139.99 |
| **T-9018320** Extra DC cable | 26.99 |
| **TCXO-7** TCXO unit | 99.99 |
| **YF-116A** 6 KHz AM filter | 119.99 |
| **YF-116C** 500 Hz CW filter | 119.99 |
| **YH-77STA** Open-air type stereo headphones | 51.99 |
| **FT-847** HF/6m/2m/430 Earth Station Xcvr/mic | 1579.99 |
| ***$300 rebate from Yaesu thru 12/31/03!** | |
| **FP-1023** 23A switching ps w/fan, 25A surge | 159.99 |
| **FP-1030A** 25A ps, 30A surge w/meters | 249.99 |
| **ATAS-100** HF/6/2/430 motorized mob ant D | 269.99 |
| **ATAS-120** HF/6/2/430 motorized mob ant | 299.99 |
| **ATBK-100** Antenna base kit; use w/base mt | 89.99 |
| **CT-39A** Packet cable | 9.99 |
| **CT-61** Interface cable; FT-847 to amp | 15.99 |
| **FC-20** Automatic antenna tuner | 269.99 |
| **FVS-1A** Voice synthesizer | 43.99 |
| **MD-100A8X** Desk mic w/tone control | 129.99 |
| **MD-200A8X** Deluxe high fidelity desk mic | 379.99 |
| **MH-36D8** TTP mobile microphone | 60.99 |
| **MMB-66** Quick release mobile mtg bkt | 39.99 |
| **SP-8** External speaker w/filters | 159.99 |
| **T-9018320** Extra DC cable | 26.99 |
| **YF-115C** 500 Hz CW Collins mech filter | 159.99 |
| **YF-115S-02** 2.5 KHz SSB Collins mech filt | 159.99 |
| **YH-77STA** Open-air type stereo headphones | 51.99 |
| **FT-840** HF Xcvr/SW Rcvr/mic | 699.99 |
| **FP-1023** 23A switching ps w/fan, 25A surge | 159.99 |
| **FP-1030A** 25A ps, 30A surge w/meters | 249.99 |
| **FC-10** External coax fed auto tuner | 379.99 |
| **FC-800** External long wire auto tuner | 439.99 |
| **FIF-232C** Interface for RS-232 | 95.99 |
| **FM-747** FM unit | 62.99 |
| **MD-100A8X*** Desk mic w/tone control | 129.99 |
| *Cable needed for FT-840; contact service for info | |
| **MD-200A8X** Deluxe high fidelity desk mic | 379.99 |
| **MLS-100** Mobile speaker | 45.99 |
| **MMB-20** Mobile mount | 34.99 |
| **SP-6** External speaker w/filter | 144.99 |
| **T-9018320** Extra DC cable | 26.99 |
| **TCXO-4** TCXO unit | 99.99 |
| **YF-112A** 6 KHz AM filter | 119.99 |
| **YF-112C** 500 Hz CW filter | 119.99 |
| **YH-77STA** Open-air type stereo headphones | 51.99 |
| **FT-897** HF/6m/2m/430 portable/base Xcvr | 989.99 |
| **FP-30** Internal power supply | 209.99 |
| **ATAS-100** HF/6/2/430 motorized mob ant D | 269.99 |
| **ATAS-120** HF/6/2/430 motorized mob ant | 299.99 |
| **ATBK-100** Antenna base kit; use w/base mt | 89.99 |
| **CT-39A** Packet cable | 9.99 |
| **CT-62** CAT interface cable | 29.99 |
| **FC-30** Antenna tuner; bolts to FT-897 | 239.99 |
| **FNB-78** 4.5ah NiMH batt (will accept 2) .† | 99.99 |
| **CD-24** 4-hr charge adapter for FNB-78 | 119.99 |
| **PA-26B** 110vac charger for CD-24 | 85.99 |
| **MD-100A8X** Desk mic w/tone control | 129.99 |
| **MD-200A8X** Deluxe high fidelity desk mic | 379.99 |
| **MH-36E8J** TTP mic | 60.99 |
| **MLS-100** Mobile speaker | 45.99 |
| **MMB-80** Mobile mounting bracket | 35.99 |
| **SP-6** External speaker w/filter | 144.99 |

## Yaesu - continued

| | AES Price |
|---|---|
| T-9018320 Extra DC cable | 26.99 |
| TCXO-9 TCXO unit, 0.5 ppm | 99.99 |
| YF-122C 500 Hz Collins CW filter | 159.99 |
| YF-122CN 300 Hz Collins CW filter | 159.99 |
| YF-122S 2.3 KHz Collins SSB filter | 159.99 |
| YH-77STA Open-air type stereo headphones | 51.99 |
| **FT-857** Mini HF/6m/2m/430 Xcvr | 799.99 |
| DSP-2 DSP unit FREE with FT-857! thru 12/31/03 | |
| FP-1023 23A switching ps w/fan, 25A surge | 159.99 |
| FP-1030A 25A ps, 30A surge w/meters | 249.99 |
| ATAS-100 HF/6/2/430 motorized mob ant D | 269.99 |
| ATAS-120 HF/6/2/430 motorized mob ant | 299.99 |
| ATBK-100 Antenna base kit; use w/base mt | 89.99 |
| CT-39A Packet cable | 9.99 |
| CT-58 Band data cable; Yaesu amplifier | 29.99 |
| CT-62 CAT interface cable | 29.99 |
| DSP-2 DSP unit | 66.99 |
| FC-30 Antenna tuner; bolts to FT-897 | 239.99 |
| MD-100A8X Desk mic w/tone control | 129.99 |
| MD-200A8X Deluxe high fidelity desk mic | 379.99 |
| MH-36E8J TTP mic | 60.99 |
| MH-59A8J Remote control TTP mic | 64.99 |
| MLS-100 Mobile speaker | 45.99 |
| SP-6 External speaker w/filter | 144.99 |
| TCXO-9 TCXO unit, 0.5 ppm | 99.99 |
| YF-122C 500 Hz Collins CW filter | 159.99 |
| YF-122CN 300 Hz Collins CW filter | 159.99 |
| YF-122S 2.3 KHz Collins SSB filter | 159.99 |
| YH-77STA Open-air type stereo headphones | 51.99 |
| YSK-857 Separation kit | 54.99 |
| **FT-817** 5w HF/6m/2m/430 SSB/AM/FM Xcvr | 729.99 |
| FNB-72 & NC-72B FREE with FT-817! thru 12/31/03 | |
| (W4R) OTT-1 One-touch tune for FT-817 | 59.99 |
| CSC-83 Soft case w/side pocket for FT-817 | 25.99 |
| CT-39A Packet cable | 9.99 |
| CT-62 CAT interface cable | 29.99 |
| EDC-6 Extra DC cord; plug & wire only | 7.99 |
| FNB-72 1000mah 9.6v nicad battery | 60.99 |
| MH-36E8J TTP mic | 60.99 |
| MLS-100 Mobile speaker | 45.99 |
| NC-72B Nicad wall charger | 18.99 |
| TCXO-9 TCXO unit, 0.5 ppm | 99.99 |
| YF-122C 500 Hz Collins CW filter | 159.99 |
| YF-122CN 300 Hz Collins CW filter | 159.99 |
| YF-122S 2.3 KHz Collins SSB filter | 159.99 |
| **FT-100D** Mini HF/6m/2m/440 Xcvr D | 949.99 |
| FP-1023 23A switching ps w/fan, 25A surge | 159.99 |
| FP-1030A 25A ps, 30A surge w/meters | 249.99 |
| ATAS-100 HF/6/2/430 motorized mob ant D | 269.99 |
| ATAS-120 HF/6/2/430 motorized mob ant | 299.99 |
| ATBK-100 Antenna base kit; use w/base mt | 89.99 |
| CT-39A Packet cable | 9.99 |
| CT-58 Band data cable; Yaesu amplifier | 29.99 |
| CT-62 CAT interface cable | 29.99 |
| CT-69 6-pin modular - 8-pin mic jack adapt D | 29.99 |
| FC-20 Automatic antenna tuner | 269.99 |
| MLS-100 Mobile speaker | 45.99 |
| MMB-62 Remote front panel mounting bkt | 39.99 |
| MMB-67 Quick release bracket | 29.99 |
| SP-6 External speaker w/filter | 144.99 |
| LL-5 Phone patch unit for SP-6 | 129.99 |
| T-9021925 Extra DC cord | 42.99 |
| XF-117A 6 KHz AM filter | 119.99 |
| XF-117CN 300 Hz CW filter D | 99.99 |
| Suggest dealer installation of filter in FT-100D | |
| Only one optional filter may be installed | |
| YH-77STA Open-air type stereo headphones | 51.99 |
| YSK-100 Separation kit | 79.99 |
| FP-1023 23A switching ps w/fan, 25A surge | 159.99 |
| FP-1030A 25A ps, 30A surge w/meters | 249.99 |
| YA-30 1.8-30 MHz broadband dipole ant | 229.99 |
| YH-77STA Open-air type stereo headphones | 51.99 |

## Yaesu - continued

| | AES Price |
|---|---|
| YS-60 1.8-60 MHz 2kw PEP wattmeter | 129.99 |
| YS-500 140-520 MHz 200w PEP wattmeter | 109.99 |
| **Quadra System** VLVP1000 HF+6m amp/ps/tuner | 4499.99 |
| **FRG-100B** .1-30 MHz shortwave receiver | 549.99 |
| FIF-232C Interface for RS-232 | 95.99 |
| FM Unit-100 FM unit | 47.99 |
| TCXO-4 TCXO unit | 99.99 |
| YF-110CN/XF-F 250 Hz CW xtal filter | 144.99 |
| YF-115C 500 Hz CW Collins mech filter | 159.99 |
| **VR-120D** .1MHz-1.2995GHz AM/FM hand/cell blkd | 189.99 |
| CT-35 Clone cable; VR-120/D D | 9.99 |
| CA-34 Charger sleeve; NC-82/VR-120D | 4.99 |
| CSC-76 Soft case for VR-120/D | 19.99 |
| EDC-15 DC adapter | 38.99 |
| FNB-79 Nicad battery for VR-120D | 8.99 |
| NC-82 Charger stand | 8.99 |
| PA-30B AC adapter | 7.99 |
| **VR-500** .1M-1.3G AM/FM/SSB hand/cell blkd | 299.99 |
| CT-35 Clone cable; VR-500 D | 9.99 |
| ADMS-3 Windows programming software | 38.99 |
| CSC-72 Soft case for VR-500 | 19.99 |
| EDC-5B DC adapter w/noise filter | 26.99 |
| EDC-6 DC adapter; plug & wire only | 7.99 |
| FNB-59 Nicad battery for VR-500 | 29.99 |
| NC-60B Wall charger | 14.99 |
| **VR-5000** .1M-2.6G base rcvr AM/FM/SSB/cell blkd | 619.99 |
| DSP-1 DSP unit | 119.99 |
| DVS-4 Digital voice recorder | 47.99 |
| FVS-1A Voice synthesizer | 43.99 |
| E-736 DC cable for FT-736R Δ | 16.99 |
| FEX-736-220 220 MHz module; FT-736R Δ | 309.99 |
| AD-3 100w 2m/440 duplexer | 52.99 |
| FRC-4 DTMF pager unit; FT-5200/6200 D | .99 |
| **FT-8800R*** 50w 2m/35w 440 FM Xcvr | 399.99 |
| *$25 rebate from Yaesu thru 12/31/03! | |
| CT-39A Packet cable | 9.99 |
| MLS-100 Mobile speaker | 45.99 |
| MMB-60 Quick release mobile mount | 29.99 |
| SP-4 Mobile speaker | 31.99 |
| T-9021810 Extra DC cable | 12.99 |
| YSK-8900 Remote separation kit | 54.99 |
| **FT-8900R** 50w 10m/6m/2m/35w 440 FM Xcvr | 439.99 |
| ADMS-2H Windows programming software | 38.99 |
| CT-39A Packet cable | 9.99 |
| MLS-100 Mobile speaker | 45.99 |
| MMB-62 Remote front panel mounting bkt | 39.99 |
| MMB-66 Quick release mobile mtg bkt | 39.99 |
| SP-4 Mobile speaker | 31.99 |
| T-9021810 Extra DC cable | 12.99 |
| YSK-8900 Remote separation kit | 54.99 |
| ADMS-2G Windows prog soft; FT-7100M Δ | 29.99 |
| YSK-7100 Rem separation kit; FT-7100M Δ | 59.99 |
| **FT-90R** 50/35w 2m/440 micro FM Xcvr | 369.99 |
| ADMS-2E Windows programming software | 38.99 |
| MLS-100 Mobile speaker | 45.99 |
| RA-0131900 Extra mobile bracket | 4.99 |
| SP-4 Mobile speaker | 31.99 |
| T-9021810 Extra DC cable | 12.99 |
| YSK-90 Remote separation kit | 54.99 |
| ADMS-2D Prog soft; 3000/8000/8100/8500 Δ | 38.99 |
| FRC-6 DTMF pager; 2400M/2500M/7400H D | .49 |
| FTS-17A CTCSS decode unit; FT-3000M Δ | 39.99 |
| FTS-22 CTCSS decode unit; FT-8100R Δ | 68.99 |
| MEK-2 Mic extend kit; 8-pin mic; FT-8500 Δ | 24.99 |
| MH-36C8J Extra TTP mic; late FT-2500M D | 59.99 |
| MMB-48 Extra mobile bracket; FT-2600M Δ | 16.99 |
| YSK-8100 Rem separation kit; FT-8100R Δ | 69.99 |
| **FT-2800M** 65w 2m FM Xcvr w/TTP mic | 159.99 |
| MLS-100 Mobile speaker | 45.99 |
| SP-4 Mobile speaker | 31.99 |

## Yaesu - continued

| | AES Price |
|---|---|
| **FT-1500M** 50w 2m FM Xcvr w/TTP mic | 159.99 |
| ADMS-2F Windows programming software | 38.99 |
| CT-39A Packet cable | 9.99 |
| MLS-100 Mobile speaker | 45.99 |
| RA-0242900 Extra mobile bracket | 9.99 |
| SP-4 Mobile speaker | 31.99 |
| T-9021810 Extra DC cable | 12.99 |
| FP-1023 23A switching ps w/fan, 25A surge | 159.99 |
| FP-1030A 25A ps, 30A surge w/meters | 249.99 |
| HRI-100 WIRES II interface box | 149.99 |
| LF-1 Mobile 13A DC noise filter | 26.99 |
| MLS-100 Mobile speaker | 45.99 |
| SP-4 Mobile speaker | 31.99 |
| **VXR-7000VA**/Vertex 50w 2m FM AC/DC rptr | 1269.99 |
| Repeaters require service dept set-up; $80 minimum | |

### Accessories for FT-26/415/416/530

| | |
|---|---|
| CA-8 2 chg sleeves; NC-50/FT-416/530 D | $ .49 |
| FBA-12 AA cell holder Δ | 19.99 |

### Accs for FT-23/33/73/411/811/470/911

| | |
|---|---|
| CA-7 2 charging sleeves; NC-50/411E/470 D | $ 4.99 |
| CSC-24S Soft case; FT-23/33/73 w/FNB-12S D | .19 |
| CSC-28 Soft case; FT-23/33/73 w/FNB-12S Δ | 1.99 |
| CSC-35 Soft case; FT-411/811/911/FNB-17 D | .49 |
| FBA-17 AA battery holder Δ | 19.99 |
| FNB-12S 12v 600mah 5w battery Δ | 55.99 |
| FNB-17 7.2v 600mah battery Δ | 34.99 |
| FTT-4 DTMF (TTP) unit for FT-23/33/73 D | .99 |
| MH-34C2B Compact lapel speaker/mic Δ | 14.99 |
| NC-28B Wall charge for FNB-17 D | 9.99 |
| NC-34B Wall charger for FNB-14 Δ | 2.99 |
| NC-65B/NC-18B Wall charger for FNB-12S Δ | 4.99 |
| PA-6 Mobile DC adapter/cgr; FNB-14/17 Δ | 9.99 |
| YH-2 Lightweight VOX headset w/mic Δ | 19.99 |
| **FT-50RD/41B** 5w 2m/440 HT/FNB41/FTT-12 | 219.99 |
| ADMS-1E Windows programming software | 38.99 |
| CA-15 Charging stand; FT-10/40/50 | 27.99 |
| NC-60B Wall charger; FNB-40/41/CA-15 | 14.99 |
| CLIP-10 Spring loaded belt clip | 7.99 |
| CN-3 BNC to SMA adapter: FT-50R | 8.99 |
| CSC-68 Soft case; FNB-41/FBA-15 | 16.99 |
| CSC-69 Soft case; FNB-40 Δ | 2.99 |
| CSC-V10 Cordura soft case; FT-10/40/50 | 27.99 |
| CT-27A Cloning cable | 11.99 |
| CT-53 Packet cable | 9.99 |
| EDC-5B DC adapter w/noise filter | 24.99 |
| EDC-6 DC cord; plug & wire only | 6.99 |
| FBA-15 4-AA battery holder | 19.99 |
| FBA-21 6-AA battery holder | 38.99 |
| FEP-10 Earphone | 9.99 |
| FNB-41 9.6v 600mah 5w battery | 58.99 |
| FNB-42 9.6v 1100mah 5w battery | 62.99 |
| FNB-V47 7.2v 1100mah battery w/belt clip | 55.99 |
| PA-17 Battery cable extender Δ | 39.99 |
| LCC-10C Leather case/belt clip; 50/FNB41/V47 D | 19.99 |
| LCC-10S Leather case/swivel; 50/FNB41/V47 | 31.99 |
| MH-30C2B Speaker/mic; use CT-30 also Δ | 29.99 |
| MH-34B4B Speaker/mic | 30.99 |
| MH-37A4B Earpiece/microphone | 30.99 |
| NC-50 1-hour dual slot charger | 92.99 |
| CA-14 2 charging sleeves; NC-50 | 26.99 |
| VC-25 VOX headset | 62.99 |

### Accessories for FT-11R/41R/51R

| | |
|---|---|
| FBA-14 AA battery holder Δ | $ 19.99 |
| FNB-33 4.8v 1200mah battery Δ | 39.99 |
| NC-55B Wall charger for FNB-31 Δ | 2.99 |
| **VX-150**/Vertex 5w 2m HT/batt/cgr/16key TTP | 119.99 |
| ADMS-1F Windows programming software | 38.99 |
| CN-3 BNC to SMA adapter | 8.99 |
| CT-27A Cloning cable | 11.99 |
| CT-44 2-pin spkr/mic adapter | 11.99 |


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Browse Our Store On-Line at www.aesham.com

## Yaesu - continued

| | AES Price |
|---|---|
| **CT-53** Packet cable | 9.99 |
| **EDC-5B** DC adapter w/noise filter | 24.99 |
| **EDC-6** DC cord; plug & wire only | 6.99 |
| **FBA-25** 6 AA cell battery case | 29.99 |
| **FNB-V57** 7.2v 1100mah battery | 57.99 |
| **FNB-64** Extra 7.2v 700mah battery | 43.99 |
| **LCC-150/TT** Leather case | 23.99 |
| **LCC-150S/TT** Leather case w/swivel | 31.99 |
| **MH-34B4B** Speaker/mic | 30.99 |
| **MH-37A4B** Earpiece/microphone | 30.99 |
| **NC-72B** Extra wall charger | 18.99 |
| **VAC-400B** 1-hour desk top rapid charger | 56.99 |
| **VC-25** VOX headset | 62.99 |
| **VX-1R** 500mw 2m/440 submini HT/lith ion D | 139.99 |
| **ADMS-1E** Windows programming software | 38.99 |
| **CN-3** BNC to SMA adapter | 8.99 |
| **CSC-71** Soft case for VX-1R | 19.99 |
| **CT-44** 2-pin spkr/mic adapter | 11.99 |
| **CT-53** Packet cable | 9.99 |
| **EDC-15** DC adapter | 38.99 |
| **FBA-20** Battery holder | 22.99 |
| **FEP-10** Earphone | 9.99 |
| **FNB-52LI** Extra 3.6v 700mah lith ion batt | 36.99 |
| **MH-34B4B** Speaker/mic | 30.99 |
| **MH-37A4B** Earpiece/microphone | 30.99 |
| **NC-66B** Extra 2 hour wall charger | 18.99 |
| **VC-25** VOX headset | 62.99 |
| **VX-2R*** 1.5w 2m/1w 440 submini HT/lith ion | 189.99 |
| ***$20 rebate from Yaesu thru 12/31/03!** | |
| **CN-3** BNC to SMA adapter | 8.99 |
| **CSC-90** Soft case | 16.99 |
| **CT-27A** Cloning cable | 11.99 |
| **CT-44** 2-pin spkr/mic adapter | 11.99 |
| **EDC-21** DC adapter | 36.99 |
| **FNB-82LI** Extra 3.7v 1000mah lith ion batt | 32.99 |
| **MH-34B4B** Speaker/mic | 30.99 |
| **MH-37A4B** Earpiece/microphone | 30.99 |
| **VC-25** VOX headset | 62.99 |
| **VX-5R** Black 5w 6m/2m/4.5w 440 HT/lith ion | 249.99 |
| **VX-5RS** Silver 5w 6m/2m/4.5w 440 HT/lith ion | 249.99 |
| **ADMS-1E** Windows programming software | 38.99 |
| **CD-15** Charger stand (use with NC-72B) D | 24.99 |
| **CD-15A** Charger stand (use with NC-72B) | 29.99 |
| **CN-3** BNC to SMA adapter | 8.99 |
| **CSC-73** Soft case | 19.99 |
| **CT-27A** Cloning cable | 11.99 |
| **CT-44** 2-pin spkr/mic adapter | 11.99 |
| **CT-53** Packet cable | 9.99 |
| **EDC-5B** DC adapter w/noise filter | 24.99 |
| **EDC-6** DC cord; plug & wire only | 6.99 |
| **FBA-23** 2 AA cell battery case | 29.99 |
| **FNB-58LI** Extra 7.2v 1100mah lith ion batt | 69.99 |
| **MH-34B4B** Speaker/mic | 30.99 |
| **MH-37A4B** Earpiece/microphone | 30.99 |
| **NC-72B** Extra wall charger | 18.99 |
| **SU-1** Altitude/barometric pressure sensor | 35.99 |
| **VC-25** VOX headset | 62.99 |
| **VX-7R** Silver 5w 6m/2m/440/300mw 220 FM HT | 329.99 |
| **VX-7RB** Black 5w 6m/2m/440/300mw 220 FM HT | 329.99 |
| **ADMS-1G** Windows programming software | 38.99 |
| **CT-91** Microphone adapter | 10.99 |
| **CD-15A** Charger stand (use with NC-72B) | 29.99 |
| **CMP-460A** Waterproof speaker/mic | 54.99 |
| **CN-3** BNC to SMA adapter | 8.99 |
| **CSC-88** Soft case | 14.99 |
| **CT-91** Microphone adapter | 10.99 |
| **EDC-5B** DC adapter w/noise filter | 24.99 |
| **EDC-6** DC cord; plug & wire only | 6.99 |
| **FBA-23** 2 AA cell battery case | 29.99 |
| **FNB-80LI** Extra 7.4v 1300mah lith ion batt | 65.99 |
| **MH-57A4B** Speaker/mic | 30.99 |

## Yaesu - continued

| | AES Price |
|---|---|
| **NC-72B** Extra wall charger | 18.99 |
| **SU-1** Altitude/barometric pressure sensor | 35.99 |
| **VC-27** Earpiece/microphone | 30.99 |

### ANTENNA ROTORS

| | |
|---|---|
| **G-450A** 10 sq ft antenna rotor/5-wire | 259.99 |
| **G-550** 12 sq ft elevation rotor/6-wire | 299.99 |
| **G-800SA** Med/hvy duty 450 degree 17sq ft/5-wire | 339.99 |
| **G-800DXA** Med/hvy duty 17sq ft/presets/5-wire | 429.99 |
| **G-1000DXA** HD 450 degree 23sq ft/presets/6-wire | 519.99 |
| **G-2800DXA** HD 450 degree 34sq ft/presets/6-wire | 1139.99 |
| Note: G-2800DXA comes w/40m (131') of rotor cable | |
| **G-5500** 11 sq ft azimuth/elevation rotor//2x6-wire | 629.99 |
| **GA-3000** Tower absorber joint; G-1000/2800 D | 119.99 |
| **GC-038** Mast clamp; G-450/800/1000/5500 | 31.99 |
| **GC-048** Mast clamp; G-2800 | 47.99 |
| **GL-33** Mast adjustment plate | 14.99 |
| **GS-050** 50mm thrust bearing; mast 1¼-2" | 31.99 |
| **GS-065** 65mm thrust bearing; mast 1½-2½" | 47.99 |
| **GS-232A** Computer interface; DXA rotors | 539.99 |
| **C-1000** Interface cable; GS-232A - SDX/G5500 | 29.99 |
| **GS-680U** Universal self-adjusting mast bearing | 99.99 |
| **Sep Kit** Separation kit for G5500 | 23.99 |

**See BELDEN for rotor cable**

### CONSUMER ELECTRONICS

| | |
|---|---|
| **VXA-150** Pro V 5w air handheld Δ | $269.99 |
| **VXA-150 Deluxe** Pro V 5w air handheld | 299.99 |
| **VXA-210** Pilot 5w air handheld w/VOR Δ | 299.99 |
| **VXA-210 Deluxe** Pilot 5w air handheld w/VOR | 354.99 |
| **VXA-700** Spirit 5w air handheld/2m FM ham | 419.99 |
| **FNB-53** Nicad battery pack; Yaesu FRS Δ | 2.99 |

## CLOSE-OUTS

| | |
|---|---|
| **ALI DJ-596T** 5w 2m/440 FM HT/NiMH/cgr/TTP | $209.99 |
| **ALI DJ-X2T** 522KHz-1GHz cc size Rcvr/lith ion/cell blkd | 199.99 |
| **ALI DR-135TP** Black 50w 2m FM/TT/1200/9600 TNC | 269.99 |
| **ALI DR-435T** Black 35w 440 FM Xcvr/TTP mic | 259.99 |
| **B&W AC-5-30** 5-30 MHz 65' folded dipole | 179.99 |
| **B&W ACS-5-30** 5-30 Mhz stainless 65' folded dip | 269.99 |
| **B&W AS-20** 20/15/10m 20' trap dipole ant | 99.99 |
| **B&W AS-40** 40/20/15/10m 40' trap dipole | 149.99 |
| **B&W AS-160** 160/80/40/20m 137' trap dipole | 149.99 |
| **B&W AT-55** 40/20/15/10m 55' trap dipole | 89.99 |
| **B&W AT-110** 80/40/20/15/10m 110' trap dipole | 99.99 |
| **B&W AXS-160** 160/30m 96' trap dipole ant | 69.99 |
| **B&W AXS-80** 80/40/15m 65' trap dipole ant | 99.99 |
| **B&W BWDS-1.8-30** 1.8-30 stainless 90' folded dip | 319.99 |
| **BEL 8018** #8 alum gnd wire **500** ft. Roll | 69.99 |
| **BEL 9251** RG-8A (non-contam) **500** ft. Roll | 279.99 |
| **BEN BY-3** Iambic keyer paddle, gold plated | 299.99 |
| **BUS 78-0040** 90mm refractor telescope | 399.99 |
| **BUS 78-0103** 1.25" erecting prism | 69.99 |
| **BUS 78-0200** 4.5" reflector telescope | 269.99 |
| **BUS 78-8000** 8" Dobsonian reflector telescope | 349.99 |
| **BUS 78-9470** 60mm refractor telescope/zoom | 129.99 |
| **CEL 11015** Celestar 8 telescope | 999.99 |
| **CEL 11051** G-5 w/motor drive telescope | 679.99 |
| **CEL 21072** Firstscope 80 EQWA refractor telescp | 199.99 |
| **CEN B41Y10-50** 4:1 3kw PEP balun for yagi | 69.99 |
| **CEN B41LW10-50** 4:1 ladder line to coax balun | 69.99 |
| **CMT CQ-5M** Dlx black QD trunk lip mt/coax | 66.99 |
| **CMT CYA-2412** 2.4G 12el 15.5db 2' 6" bm N beam | 129.99 |
| **CMT DS-15** 6m/2m/440/900/1.2 discone ant | 69.99 |
| **CMT GP-24S** 2.4GHz 9.9db 3' 7" N base/rptr | 99.99 |
| **DIA F-718L** 420-430 11.5db ATV N base ant | 169.99 |
| **GAR 010-10215-03** Mapsource Metroguide CD | 99.99 |
| **GAR NavTalk** Analog cell phone/GPS combo | 199.99 |
| **GAR StreetPilot** 12ch dash mt mapping GPS | 399.99 |
| **HAL DXP-38** External DSP HF radio modem | 369.99 |
| **HEI HM-I** Studio condensor mic; Icom | 89.99 |
| **IAC 40m-S** 40m half sloper 33' antenna | 69.99 |
| **ICO BC-119-N21** Nicad/NiMH desk cgr; T81A | 99.99 |

## Close-Outs - continued

| | AES Price |
|---|---|
| **ICO BP-8** 8.4v 800mah long life battery | 99.99 |
| **ICO BP-83** 7.2v 600mah battery | 79.99 |
| **ICO BP-84** 7.2v 1000mah battery | 99.99 |
| **ICO BP-199** 6v 700mah NiMH battery; T81A | 69.99 |
| **ICO BP-200L** 9.6v 760mah NiMH batt; T81A | 89.99 |
| **ICO EX-1759** Infrared receiver | 99.99 |
| **ICO FL-96** 2.8 KHz 455 KHz IF SSB filter | 139.99 |
| **ICO FL-102** 6 KHz 9 MHz IF AM filter; 775DSP | 79.99 |
| **ICO HM-90A** Wireless microphone | 119.99 |
| **ICO IC-2GXAT/HP** 7w 2m HT/batt/cgr/TTP | 249.99 |
| **ICO RS-746** Win remote control software | 69.99 |
| **ICO UT-66** Voice synthesizer; IC-775DSP | 69.99 |
| **ICO UT-84** Tone squelch unit; 2700H/821H | 89.99 |
| **ICO UT-86** Tone squelch; IC-706 Mk II only | 69.99 |
| **ICO UT-89** Tone scan/decode unit; IC-2350H | 89.99 |
| **KEN DRU-2** Digital recording unit; TS-950SDX | 139.99 |
| **KEN PB-33** 6v 1200mah battery; TH-22ATH | 89.99 |
| **KEN PB-34** 9.6v 600mah 5w batt; TH-22ATH | 89.99 |
| **KEN SP-950** Ext spkr/audio filters; TS-950SDX | 149.99 |
| **KEN TH-22ATH** 5w 2m FM HT/batt/cgr/TTP | 199.99 |
| **KEN UBZ-LH14BK** Deluxe FRS black handheld | 69.99 |
| **KEN YG-455C-1** 500 Hz CW filt; TS-450/690 | 149.99 |
| **LAC WS-8015U** Dlx sun/moon wireless WX stn | 159.99 |
| **MAG Meridian GPS** GPS with 2MB base map | 169.99 |
| **MAG Meridian XL** GPS/plotter/detachable ant | 89.99 |
| **MAH MH-C777 Plus** Univ cgr/analy; lith/nicd/nimh | 69.99 |
| **MAL PR-212DNMO** 2m/440 6/8.5db 85" NMO | 79.99 |
| **MEA 07436** #497 Autostar controller; ETX-125EC | 119.99 |
| **MFJ 781** DSP filter for any TNC or controller | 89.99 |
| **MFJ 1756** 6m DX vertical antenna | 69.99 |
| **MFJ 9117B** 9017 Xcvr/tuner/ps/ant package | 199.99 |
| **MFJ 9130B** 9030 Xcvr/tuner/ps/ant package | 249.99 |
| **MFJ 9140B** 9040 Xcvr/tuner/ps/ant package | 269.99 |
| **MIR C-5022G** 220 FM/SSB 50/200w amp/pre | 369.99 |
| **MIR KP-1/10M** 10m in shack preamp | 119.99 |
| **MIR KP-1/220** 220 in shack preamp | 119.99 |
| **MIR KP-2/10M** 10m mast mount preamp | 129.99 |
| **MIR KP-2/220** 220 mast mount preamp | 139.99 |
| **MIR MP-3** 420-450 5/50/150w PEP wattmeter | 229.99 |
| **MSQ 2M-XP20** 144-146 13.3db 10h/10v cross polar | 179.99 |
| **MSQ 2M-XP28** 144-146 15.1db 14h/14v cross polar | 249.99 |
| **MSQ 222-XP30** 220 15.2db 15h/15v cross polar | 199.99 |
| **MSQ EB-432** 432 Eggbeater antenna | 119.99 |
| **MSQ FAST MAST** 20' extended port alum mast | 129.99 |
| **PAC Spirit-2** Std high performance controller | 199.99 |
| **PLY CS3-100** 100' 3" copper strap | 159.99 |
| **SAN ATS-818** AM/FM/shortwave port Rcvr | 179.99 |
| **SAN ATS-818CS** AM/FM/SW port Rcvr/cassette | 219.99 |
| **SGC 52-34** RS-232 interface; SG-2000 Xcvr | 129.99 |
| **SGC 53-04** PS-30 30A/40A peak unreg ps | 319.99 |
| **SGC 55-04** SG-103 2-28 MHz 90' 150w dipole | 199.99 |
| **SGC 55-48** QMS-3 500w antenna system | 1999.99 |
| **SUA MP-1** Portable 150w 7-50Mhz antenna | 129.99 |
| **UNI HH-940P** 1w submersible VHF marine HH | 99.99 |
| **YAE ATAS-100** HF/6/2/430 motorized mob ant | 269.99 |
| **YAE FEX-736-220** 220MHz module; FT-736R | 309.99 |
| **YAE FT-100D** Mini HF/6m/2m/440 Xcvr | 949.99 |
| **YAE FT-1000D** Deluxe HF Xcvr/ps | 3999.99 |
| **YAE FTS-22** CTCSS decode unit; FT-8100R | 68.99 |
| **YAE GA-3000** Twr absorber joint; G-1000/2800 | 119.99 |
| **YAE VX-1R** 500mw 2m/440 submini HT/lith ion | 139.99 |
| **YAE VXA-150** Pro V 5w air handheld | 269.99 |
| **YAE VXA-210** Pilot 5w air handheld w/VOR | 299.99 |
| **YAE XF-117CN** 300 Hz CW filter; FT-100 | 99.99 |
| **YAE YSK-8100** Rem separation kit; FT-8100R | 69.99 |

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- **Fully Service Tested trade-ins**
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## USED EQUIPMENT

**A (+) at the end of the equipment description indicates there are additional options included.**

### ALINCO
DX70TH HF XCVR/6M.....439.99f
EDC6 CHARGER.....9.99m
MOBILE HAND MIC /TTP.....39.99f

### AMERITRON
AL80A 1KW HF AMPLIFIER .749.99f
AL811 600W HF AMPLIFIER.479.99m

### AOR
AR16B RCVR .....159.99m
AR8200B WIDEBAND RCVR.429.99c
AR8600 WIDEBAND RCVR .599.99v

### BENCHER
RJ1 BLACK HAND KEY.....79.99f

### CHEROKEE
AH27 CB HT (LIKE NEW) .....49.99c

### COURIER
M54 151.625 MHZ HT .....79.99m

### DIAMOND
K400C HATCH/TRUNK MT.....54.99v

### KENWOOD
AT50 AUTOMATIC TUNER ...259.99c
BC19 RAPID CHARGER .....51.99f
PS40 20A SWITCHING PS...124.99m
PS430 POWER SUPPLY .....149.99m
PS53 POWER SUPPLY .....179.99m
SP430 SPEAKER/SCRATCHED ..44.99c
TL922A 2KW HF AMPLIFIER .1,349.99c
TMV7A 2M/440 XCVR .....329.99mcv
TS140S HF XCVR .....399.99c
TS450S/AT HF/WORN PANEL....569.99m
TS570D HF XCVR .....649.99m
TS811A 70CM FM/SSB.....449.99f
TS811A /SCRATCHED .....429.99m
TS940S/AT/SO2/YK88C1+ .949.99c
TS950SDX HF XCVR .....2,299.99c

### MFJ
212 TUNE-UP HELPER .....59.99f
407C ELECTRONIC KEYER ..59.99f
462B MULTI READER .....135.99f
493 MEMORY KEYER .....103.99f
704 LOW PASS FILTER .....39.99f
949E ANT TUNER/RUFF TOP ...89.99m
962D ANTENNA TUNER .....199.99m

### MIDLAND
75510 FRS XCVR.....49.99f

### NCG
MH900PK EAR/MIC .....29.99c

### PALOMAR
PT340 TUNER-TUNER .....79.99m

### RANGER
RCI5054DX 6M FM/SSB ....214.99m

### SGC
PS30 30/40 UNREG PS .....319.99c
0411 REMOTE HEAD .....471.99f
0501 SG2020 HF XCVR .....469.99m
5418 SG237 SMARTUNER ..249.99m

### STANDARD
C1208DA 2M XCVR.....359.99c

### UNIDEN
HH985 5W 90CH MARINE HT .99.99m

### VECTRONICS
CK200 DELUXE KEYER.....53.99c
VC300D ANTENNA TUNER ..139.99m

### YAESU
CA10 2 CHARGE SLEEVES .....9.99c
CD24 CHARGER.....104.99f
CSC29 SOFT CASE.....14.99c
CSC62 SOFT CASE.....99c
CSC67 SOFT CASE.....99c
FBA3 CHARGING SLEEVE.....19.99c
FC30 AUTO TUNER.....189.99mc
FL7000 HF AMPLIFIER ....1,679.99m
FP1023 PWR SUPPLY.....127.99mcf
FRG100B SWL RCVR.....374.99m
FT1000 W/BFP1 .....2,374.99mf
FT1000D HF XCVR .....2,699.99mf
FT1000MPMKV XCVR .....2,099.99m
FT50RD/41B 2M440 HT+ ..175.99f
FT817 XCVR .....499.99m
FT8500 XCVR/SEP KIT .....179.99m
FT920 XCVR/YF116A .....819.99m
FT990 AC HF XCVR .....1,129.99mf
FT990 AC XCVR/SCUFFED ..1,099.99m
FT990DC HF XCVR.....899.99mf
MMB67 MOUNT .....19.99m
NC26B CHARGER .....4.99m
NC34B CHARGER .....9.99m
PA26B ADAPTER, CD24 .....69.99m
SP7 SPEAKER .....29.99m
VC25 VOX HEADSET.....39.99f
YM50 MICROPHONE .....39.99m

## DEMO EQUIPMENT

### ADI
ARC12 SMART CHARGER.....44.99v
AT201HP HT.....89.99m

### AEA/TIMEWAVE
WEFAX256 PROGRAM .....116.99v

### AIM
38384 4A POWER SUPPLY ...34.99m

### ALINCO
DJC5T 300MW 2M/440 HT .134.99m
DJV5TH 5W 2M/440 HT.....188.99m
DJX2T WIDEBAND RCVR.....179.99m
DJ196T 5W 2M HT .....125.99v
DJ596T 5W 2M/440 HT .....189.99mf
DR435T 35W 440 FM XCVR 233.99f
DR605TQ 2M/440 XCVR ....305.99c
DR620T 2M/440 XCVR.....299.99mf
DX77T HF XCVR.....629.99f
EBP18N BATTERY .....52.99f
EBP35N BATTERY .....69.99c
EBP36N BATTTERY .....61.99v
EDC34 FAST CHARGER .....69.99m
EDC60 FAST CHARGER .....71.99v
EDC63 ADAPTER.....14.99m
EDS9 SEPARATION KIT .....39.99m
EME13 HEADSET .....63.99m
EMS14 MICROPHONE .....99.99m
EMS49 SPEAKER/MIC .....29.99c
EMS51 HEADSET .....34.99m
ESC18 CASE.....9.99m

### ALPHA DELTA
DELTA4CN 4 POS "N" SWITCH 134.99v
PATHMINDER SWITCH .....134.99m

### AMECO
HP300T HIGH PASS FILTER ....8.99v
P12T AC ADAPTER .....8.99c
TPA PREAMP.....69.99m
107PC2 CODE SOFTWARE....24.99m

### AMERITRON
AL800H 1.5KW HF AMP...2,159.99f
AL811 600W HF AMPLIFIER .539.99v
ARB702Y INTERFACE RELAY 34.99m
AWM30 SWR/WATTMETER ..124.99m
RCS8V REMOTE SW 230V ..139.99m

### AOR
AR16B RCVR .....179.99mv
AR3000A WIDEBAND RCVR..989.99mf
AR3000A RCVR/NO ANT .....899.99m
AR8200B WIDEBAND RCVR.429.99mc
AR8200MKIIB RCVR .....499.99m
SC8200P CASE.....9.99m
TDF370 DSP UNIT.....299.99m

### ARRL
242 OPER MANUAL CD ROM 34.99v

### ASTATIC
TUG9D104 DESK MIC.....84.99f

### ASTRON
RS10A 7A POWER SUPPLY ...59.99f
RS12A POWER SUPPLY .....71.99c
RS20A POWER SUPPLY .....89.99m
RS4L 3A POWER SUPPLY .....44.99v
VS35M POWER SUPPLY .....169.99m

### B&K
114A MULTIMETER .....34.99m

### B&W
AS160 160-20 DIPOLE.....139.99c
AS40 40-10 TRAP DIPOLE .139.99c

### BAYGEN
FPA3 BULBS .....6.99m

### BENCHER
BY3 IAMBIC KEYER PADDLE 249.99m
YA1 1KW LO-PASS FIL/190- .76.99v

### BMI
972A 12 HR WALL CLOCK ...14.99f

### BUSHNELL
17-7351 7X35 BINOCULAR..34.99m

### BUTTERNUT
CPK COUNTERPOISE KIT....116.99c

### CELESTRON
NEXSTAR 5 TELE/TRIPOD ...799.99f
11031 NEXSTAR 5 SCOPE..899.99f

### CENTAUR
B11W1050 1:1 BALUN.....48.99m

### CES
SSI68 PRIVATE PATCH.....199.99m

### CHANNEL MASTER
9515A ROTOR/KNOB.....99.99m

### COAXIAL DYNAMICS
82007 ELEMENT.....79.99m

### COBRA
FRS200 FRS HT .....34.99m
148NWST CB XCVR.....159.99m
19 ULTRA II CB XCVR .....39.99f
25LTD CLASSIC CB XCVR ....79.99c
25WXNWST CB XCVR.....99.99m

### COM SPEC
DTD-1 DTMF DECODER.....44.99c
ID8 AUTO MORSE ID BOARD 64.99m

### COMET
CK5N "N" MOUNT.....39.99m
GR5M TNK LIP W/COAX.....60.99mv
M24M 2M/440 MAG ANT.....34.99m

### COURIER
M54 151.625 MHZ HT .....49.99cf
U22/A 462.575 MHZ HT.....49.99m
U22/B 462.625 MHZ HT .....49.99m

### CONNECT SYSTEMS
CS800 MANUAL.....7.99v

### CUSHCRAFT
ARX6 26' 6M RINGO ANT ...129.99f
A627013S 6/2/440 YAGI....161.99c
MA5V 5 BAND VERTICAL....179.99v
X740 40M ADD-ON KIT.....287.99v
224WB 220 MHZ BOOMER ..64.99m

### DAIWA
CN801H SWR/PWR METER.134.99mcf
CS401N 4-POS "N" SW .....119.99f

### DAVIS
7852 RAIN COLLECTOR .....69.99f
7400 PERCEPTION II.....125.99v
7852 RAIN COLLECTOR .....59.99m

### DCI
223.53H 220 MHZ BP FILT...99.99f

### DIAMOND
K400 HATCH/TRUNK MOUNT 29.99f
K412CNMO MOUNT.....54.99m
K540 MIRROR/RACK MT .....28.99v
K540KM MIRROR/RACK MT..53.99v
K550KM LUGGAGE RK MT....62.99v
K600M TRUNK MOUNT.....49.99m
K601M MOUNT .....62.99cv
K601NMO MOUNT.....59.99v
K702M HD MAG MT .....44.99v
SPM-NMO HD NMO MAG MT .39.99v
X700HNA 2M/440 BASE ANT .299.99f

### DRAKE
MS-8 SPEAKER .....53.99m

### ECG
TB105 THRUST BEARING .....15.99m

### EMERSON
EAN3400 TV ANTENNA.....24.99m
EVS5000 A/V EXTENDER.....24.99m

### GAP
HEARIT DSP SPKR.....144.99m
TITAN DX 8 BAND VERTICAL 288.99v

### GARMIN
E-MAP DELUXE .....188.99m
GPSV DELUXE GPS.....359.99m
GPS12XL GPS .....199.99m
GPS38 GPS RCVR .....149.99f
0101020300 CIG/LGHT CABL 35.99m

### GENESYS
TO5K THROAT MICROPHONE 39.99m

### GROTHE
VS4 P/A EMERGENCY SIREN .124.99m

### GRUNDIG
G2000A SW RCVR.....89.99m
MINIWORLD 100PE SW RX ...26.99m
SATELLIT 800 SW RCVR ....449.99cf
S350 RCVR.....89.99m
TRAVELLER VII SW RCVR .....89.99m
TRAVELLER II SW RCVR .....44.99m
TRAVELLER III SW RCVR .....89.99c
YB400PE SW RCVR.....134.99f

### HAL
DXP38 DSP HF MODEM.....332.99f

### HEIL
AD1K CABLE/KENWOOD .....15.99v
BM55 MIC/HDST/HC5 .....62.99v
CC1K KENWOOD APAPT CABLE .27.99v
GMV VINTAGE MIC/XFMR ...139.99c
HCL5 CLASSIC MIC.....199.99mf
HDAT HEADPH ATTENUATOR...5.39v
HMMIC HNDMC/ICOM .....52.99c
HM105 MICROPHONE .....59.99c
PRO5IC BOOMSET/ICOM ....124.99c
TB1 MIC STAND .....22.99c

### HUSTLER
C32 CHROME BALL.....10.99m
G71504 2M ANTENNA.....179.99m
MO1 MAST/NEW/NO BOX .....28.99m
NMO MAG MT (AS-IS) .....32.99f
RTM 25" MAG MT CB ANT....14.99v
SSM1 SS BALL & SPRING ....42.99c

### HYGAIN
AR40 3 SQ FT ANT ROTOR .249.99m

### ICOM
AD51 CHARGE ADAPTER .....9.99mcv
AD56 CHARGE ADAPTER .....12.99v
AD81 CHARGE ADAPTER .....12.99mf
AD87 CHARGE ADAPTER .....7.99m
AH2B HARDWARE/NO WHIP 159.99m
AT180 ANTENNA TUNER.....329.99m
BA12 ADAPTER .....19.99f
BC119 01 CHARGER.....76.99f
BC119(11) DESK CHARGER .62.99c
BC119(31) DESK CHARGER .89.99c
BC119N(21)/AD87 CHGR.....94.99c
BC119N11 DESK CHARGER .79.99v
BC127A CHARGER.....18.99m
BC135 CHARGER.....69.99m
BC144(01) CHARGER .....80.99mv
BP132 BATTERY .....79.99m
BP157 BATTERY .....59.99c
BP170 BATTERY CASE .....31.99v
BP173 BATTERY .....89.99mc
BP198 BATTERY .....49.99m
BP209 BATTERY .....44.99m
BP211 BATTERY .....79.99m
BP5 5W BATT.....71.99f
CP13 CIG ADAPTER .....34.99m
CP13L CIG ADAPTER.....34.99m
CP17L CIG ADAPTER.....19.99mf
CSWHH4 SOFTWARE/CABLE.44.99m
CSWR10 SOFTWARE .....40.99c
HM12 HAND MICROPHONE ..67.99v
HM46 SPEAKER MIC .....40.99cf
HM77A MICROPHONE .....109.99v
HM90A WIRELESS MIC.....119.99m
HM92A MICROPHONE .....89.99m
HS10SA HEADSET.....59.99m
HS51 HEADSET.....84.99m
HS85 HEADSET.....79.99mv
IC-T7H 6W 2M/440 HT.....169.99m
ICF21GM GMRS/FRS HT.....134.99cf
ICQ7ABC 2M/440 XCVR.....107.99c
ICT22A HT/SPK-MIC/CP12 .259.99v
ICT22A 5W 2M HT.....179.99mcfv
ICT90A 5W 6/2/440 HT.....239.99m
ICV8 5.5W 2M HT .....114.99c
ICW32A 5W 2M/440 HT .....239.99m
IC2GXAT 3W 2M HT.....189.99c
IC208H 2M/440 FM XCVR..296.99f
IC2720H 2M/440 FM XCVR 341.99f
IC4008A FRS HT.....69.99mc
IC703 10W HF XCVR.....599.99m
IC706MKIIG HF/VHF/UHF ..719.99f
IC746PRO HF/6/2 XCVR..1,439.99mf
IC910H 2M/440 XCVR .....989.99c
LCF21L LEATHER CASE.....34.99v
LC128 CASE .....34.99mv
LC137 CASE .....34.99c
LC147 CASE .....19.99m
LC148 CASE .....22.99c
MB62 BRACKET.....23.99c
MB65 BRACKET.....29.99m
MB85 BRACKET.....19.99m
OPC023A POWER CABLE .....14.99f
OPC184 POWER CORD.....24.99m
OPC598 CABLE/AT180.....65.99v
PCR100002BON RCVR .....339.99m
PS85 POWER SUPPLY .....239.99m
R2(06) WIDEBAND HH RX....89.99f
R5(06) WIDEBAND HH RX..179.99cv
R75 SW RECEIVER.....539.99f
SM20 DESK MICROPHONE .179.99c
SP13 EARPHONE .....3.99v
SP20 SPEAKER .....209.99m
SP7 SPEAKER .....85.99v
UT63 BOARD .....14.99m
UX910 1.2 GHZ MODULE ...449.99c

**This Used and Demo Equipment inventory is as of 9/4/2003**
**A current list is available at www.aesham.com or Call Toll Free**

## DEMO CONTINUED

**IDIOM PRESS**
HK-3 IDI HOOK UP KIT .....9.99v
K3 LOGIKEY CW KEYER.....116.99v

**INTERNATIONAL ANTENNA**
160M HALF-SLOPER .....124.99m

**JPS**
NIR10 FILTER.....79.99m

**KANTRONICS**
HOSTMASTERII+ V3.4.....80.99c
KAM98 TNC .....359.99v
KPC3+/128K .....168.99m
KPC9612UPGRADE ONLY .....19.99m

**KENWOOD**
EXTRA HEAD BRKT/TMD700...9.99v
BC17 220V WALL CHARGER ..9.99f
EMC3 LAPEL CLIP MIC/EAR .26.99v
HMC3 VOX/BOOM MIC .....53.99c
KNB7A BATTERY .....69.99m
KSC8 CHARGER (220V) .....19.99f
MC52DM 8 PIN TT MIC .....71.99mc
MC58DM TTP MIC.....71.99v
MC60A DESK MIC .....134.99mv
PB33 BATTERY .....80.99v
PB39 BATTERY .....49.99m
PG3E CIGARETTE CORD .....8.99m
PG4X CABLE EXTENSION .....62.99c
PS40 POWER SUPPLY .....134.99m
TS2000X HF/VHF/UHF XCVR2,069.99m
TS50S HF XCVR .....569.99m
TS870S HF XCVR .....2,069.99mf
TS870S HF XCVR/SO2.....2,119.99f
UBZAL14BK FRS/NEW.....24.99m

**KOSS**
GT/3 HEADPHONES .....4.99m

**LARSEN**
KG144UDPL 2M GLASS MT ..69.99c
NMOQSPEC 136-512 ANT ....12.59v
NMOTLP TRUNK LIP MOUNT .26.99v
NMO150B 2M ANT .....29.99m
NMO150TLM 2M ANT/TRNK MT49.99v
NMO440C UHF ANTENNA .....24.99m

**LDG**
AT11MP HF AUTO TUNER ...199.99m
RTICCABLE INTERFACE CAB 18.99f
RT11 HF REMOTE TUNER ...179.99mf

**LIGHTWAVE**
LW-HT HEADTORCH .....35.99v
LW3000 7 LED FLASHLIGHT .44.99v

**MAGELLAN**
GPSTRACKER GPS .....134.99m
MERIDIANXL GPS.....149.99m
0069038000 PC KIT .....89.99m

**MAHA**
MHA102 2M 35W AMP .....62.99c
MHBP132 BATTERY .....49.99m
MHBP8H BATTERY .....59.99m
MHC777 CHARGER .....44.99c
MHC777PLUSII CHGR/ANALY.79.99f
MHSC800U ADAPTER.....8.99m
MHSC803 ADAPTER.....6.99m
MHSI1 ADAPTER .....6.99m
MH101Y2 CHGR .....59.99m

**MAXON**
FRS114 FRS HT .....25.99cf
GMRS21X GMRS HT.....89.99c
MX49FX XCVR .....44.99m
MX49FX 49 MHZ XCV .....19.99c
PC50 40MHZ HT .....19.99mc

**MFJ**
1026 NOISE CANX ANT .....149.99m
1040B RCVR PRESELECTOR89.99v
1118 DLX DC PWR STRIP.....67.99c
113 24/12 HR CLOCK.....17.99c
116DC CLOCK .....8.99f
118 24/12 HR JUMBO CLOCK.22.99c
1214PC INTERFACE .....124.99mc
1224 INTERFACE .....89.99m
125 24 CLOCK/CALENDAR...26.99m
1272MYH TNC/MIC SWITCH.35.99v
1272MZ TNC/MIC SWITCH ..25.99f
1275 SOUNDCARD INTERFACE.89.99f
1279M SOUNDCARD INTERF 115.99v
128 CLOCK .....49.99m
1285 IBM SOFTWARE.....14.99m
1289M 3-1/2 IBM SOFTWARE .53.99mcv
1305 5V AC ADAPTER.....9.99m
1312D 12V AC ADAPTER .....12.99m
1315 ADAPTER .....9.99f
1730 2M ROLL-UP VERTICAL.17.99v
297 DESK MIC.....62.99c
4114 POWERPACK.....59.99m
422D KEYER/PADDLE .....139.99m
4245MC POWER SUPPLY ...169.99m
44 SCOPE TUNE.....13.99c
45B 128K RAM 1C.....4.99f
490 PADDLE/KEYER.....169.99mv
498X KEYER .....134.99m
5024B CABLE .....12.99f
5080 MFJ TNE/YAE 8P CBL ....9.99m
5084 MFJ TNC/ICOM 8P CBL.13.99mc
5086 KEN/ALI 8-PIN CBL.....12.99v
5086YH KAM HF KEN 8P.....12.99v
5383Y YAE INTERFACE CBL.35.99v
5397Y YAE 8-PIN CABLE .....14.39c
5397YM YAE MOD CABLE.....14.39c
641I3 CHARGER .....44.99m
641K BAT CHARGER .....44.99cv
8121 AM/FM/SW PORTABLE .34.99m
924 440MHZ ANT TUNER.....62.99v
931 ARTIFICIAL GROUND .....79.99m
9406X 10W 6M SSB XCVR .224.99mc
9420X 12W 20M SSB XCVR.199.99m
948 300W ANTENNA TUNER .107.99v
986 2KW ANTENNA TUNER..269.99m

**MGE**
HFS1 SPEAKER .....7.99m

**MIDLAND**
22430 THROAT/MIC.....29.99m
74200 WX RCVR.....44.99m
74210 WX RCVR.....49.99m
75510 FRS RADIO.....29.99c

**MIRAGE**
B215G 2M 2/150W AMP ....269.99mf
B23 2M 2/30 AMP .....89.99f
B23G 2M 2/30W AMP .....119.99v
B24G 2M 5/50W DOCK/AMP..99.99m
B2516G 2M 25/160W AMP .299.99m
B310G 2M 4/100W AMP ....159.99f
B34 2M FM 2/30W AMP.....62.99v
B510G 2M 100W HT AMP ..188.99m
D26N 440 2/60W AMP.....234.99m
KP1/10M 10M RX PREAMP 114.99m
KP1/6M 6M RX PREAMP .....99.99f
KP2/10M 10M PREAMP.....159.99m
KP2/220 220 RX PREAMP..159.99m
MP1 HF 2KW WATTMETER ..197.99f
MY4 FT10/40/50 ADAPTER ....7.99f
RC1 REMOTE CONT HEAD....39.99m

**MOTOROLA**
50988 FRS .....39.99m
53547 GMRS .....179.99m

**M SQUARED**
2M5440XP 2M/440 YAGI ...179.99c

**POUCH**
P5 POUCH .....13.50v

**RANGER**
RCI2950DX 25W 10/12 XCVR 239.99m
RCI2970DX 150W 10/12....359.99c

**RF CONCEPTS**
223 2M 2/30W AMP (NEW) ..89.99f

**RMS**
CN220 HF/220 WATTMETER .89.99c

**SANGEAN**
ATS-404 AM/FM/SW RCVR ...69.99m
ATS505 AM/FM/SW RCVR ..116.99c
ATS818ACS SW RCVR/TAPE.199.99mc
DTV200V AM/FM/VHF TV RX..59.99m

**SGC**
0401 SG2000 HF XCVR ..1,439.99v
0501 SG2020 XCVR.....599.99m
5296 SG500 HF AMP .....1,124.99v
5304 PS30 POWER SUPPLY 289.99m
5417 SG-231 HF+6M TUNER.476.99cv
5422 SG239 TUNER.....161.99c
7007 POWER CLEAR DSP ..249.99m

**SHAKESPEARE**
495 MARINE ANT MOUNT.....15.99v

**SHURE**
526T SERIES II DESK MIC ..111.99v

**SMILEY**
270A 2M/440 TELE WHIP .....17.99m

**SONY**
AN102 ACTIVE LOOP ANT.....69.99m
ICFSW77 AM/FM/SW PORT RX .422.99m
ICFB200 AM/FM CRANK RX .44.99c
ICFCW7600GR SW RCVR ...161.99v
ICFSW07 AM/FM/SW RCVR 359.99mf
ICFSW1000T AM/FM/SW RX.359.99m
ICFSW30 AM/FM/SW RCVR ..69.99c
ICFSW77 AM/FM/SW RCVR 419.99m

**TEAK**
LF20 WIRELESS A/V SYS.....79.99m
TV42 TV ANTENNA .....49.99m
TV50 AMP TV ANT.....71.99v
VR1 TV VOLUME REGULATOR 44.99mv

**TIMEWAVE**
ANC4 NOISE CANCELLER...179.99m

**TRIPP LITE**
PV140 INVERTER .....38.99m

**UNIDEN**
ATLANTIS 5W VHF MARINE HT.89.99v
BC147XLT SCANNER.....80.99c
BC244CLT SCANNER .....89.99c
BC80XLT SCANNER.....104.99m
PRO538W CB XCVR .....54.99m
SC150 SCANNER .....143.99c
WX500 SAME WX RCVR .....44.99m

**VALOR**
MM3401B BLK TRI MAG MT.53.99c
MM3401B TRI-MAG MOUNT 53.99c
PHF6 6M 58" WHIP.....19.99m
PM144440BN BNC MAG MT...9.99f

**VANCO**
HF24RS HEADPHONES.....17.99m
370052 DIG MULTIMETER....17.99c

**VECTRONICS**
AT100 ACTIVE ANTENNA .....64.99v
DL2500 DRY DUMMY LOAD161.99v
HFT1500 ANT TUNER .....359.99f
HPF1 HIGH PASS FILTER .....14.99m

**VIBROPLEX**
150 SQUARE RACER.....124.99m
153 GOLD STRAIGHT KEY ..249.99m

**WEST MOUNTAIN RADIO**
RB/M8/C RIGBLASTER.....94.99m

**WILSON**
WILSON TRUCKER 2000 ANT .49.99m

**W2AU**
W2AU W2DU BEAM BALUN ..23.99v

**WAR**
OTT1 TUNE CONTROL.....39.99f

**X-10**
SP-554A MOTION DETECTOR .26.99v

**YAESU**
ADMS1E SOFTWARE..... 34.99v
ADMS2G SOFTWARE .....34.99cv
AD3 2M/440(N) DUPLEXER..47.99v
ATAS100 MOBILE ANTENNA .242.99v
CA10 CHARGE ADAPTER.....11.99mv
CD15 CHARGE STAND.....19.99mv
CSC67 CASE.....16.99v
CSC69 FOR FNB40 .....13.99m
CSC83 SOFT CASE.....22.99f
CSC88 CASE.....12.99m
CT26 CABLE .....19.99m
EDC12 CIGARETTE ADAPT....24.99m
FC20 ANTENNA TUNER .....242.99c
FH1 KEYPAD .....79.99m
FIF232C INTERFACE.....84.99m
FNB31 BATTERY .....41.99m
FNB41 BATTERY .....52.99c
FNB72 4.5AH BATTERY .....89.99f
FNB78 BATTERY; FT897.....89.99f
FP1030A 25A PS W/MTRS..224.99mfv
FT1000MPMKV 200W HF.2,699.99f
FT1500M 2M 50W XCVR ....143.99v
FT2800M 65W 2M XCVR....139.99mf
FT50RD/41B 2M/440 HT....197.99c
FT7100M 50/35W 2M/440..395.99f
FT857HF/6/2/430/DSP2.....694.99m
FT8900R CIRCUIT DIAGRAM ..2.99v
FT8900R 10/6/2/440.....399.99m
G5400 ANTENNA ROTOR....399.99m
G5500 AZ/EL ANT ROTOR ..566.99v
HRI100 WIRES UNIT.....149.99m
MD100A8X DESK MIC .....116.99v
MH30A2B SPKR/MIC.....24.99m
MH30C2B SPKR MIC.....41.99c
MH32A2B SPK/MIC .....22.99m
MH34B4B SPKR MIC.....27.99c
MH36B MIC FOR FT90R .....19.99v
MH36C8J MIC.....54.99m
MH37A4B SPKR/MIC.....27.99m
NC55B CHARGER .....11.99v
NC66B CHARGER/VX1R.....14.99m
SP7 SPEAKER .....35.99m
VC22 HEADSET.....44.99m
VR120 RCVR .....152.99mcf
VR120D COMM RCVR .....179.99mf
VR5000 WIDEBAND RCVR..799.99m
VXF10 HT.....104.99m
VX1R 500MW 2M/440 HT ..125.99v
VX150 5W 2M HT.....109.99mf
VX5R 5W 6/2/440 HT.....224.99f
VX5RS (SILVER) HT.....224.99f
VX7R 6/2/440/220 HT .....314.99c
VX7RB (BLACK) HT.....314.99f
YA007FG ANTENNA.....79.99m
YF112C CW FILTER.....107.99v
YH1 HEADPHONES.....34.99m
YSK7100 REMOTE SEP KIT ..62.99cv

# TRADE & UPGRADE

We need your clean SSB & FM Gear!

## Call for our Quote

Sorry, no Handhelds

A portion of the Used/Demo inventory in Milwaukee

### Please used these lists as a Guide

These *Used and Demo Equipment* lists are compiled from an actual inventory as of 9/4/2003. However, due to turnover from daily selling and trading, the actual items listed may or not be available.

All of our stores are linked via computer which allows real time access to our ever changing inventory. For your needs, you may call any of our locations to check for availability or to discuss an alternative with one of our salespersons.

The *Used and Demo Equipment Equipment* lists are also available on our web site and are updated every week (www.aesham.com). Check it Out!

## SANGEAN

**ATS-404 Full Performance, Full Featured Digital, AM/FM Stereo Shortwave Receiver** Continuous coverage (continuously tunes all shortwave bands and any frequency in between). AM reception with 9k/10k switch, FM plus stereo with earphones. Keypad entry and auto and manual search buttons, 45 memory presets, auto memory scan. Illuminated LCD display, tone control, lockswitch. Dual time (12/24 hour) clock and adjustable sleep timer with new Human Wake System. Carrying case and stereo earbuds included. Uses four "AA" batteries. 6.5"w x 4"h x 1.25"d.. **$79.99**

**ATS-505 Professional Digital Multiband Receiver** AM/FM stereo/shortwave and SSB reception • Continuous coverage (tunes all shortwave bands and any frequency in between) • Auto memory scan (45 presets, plays each in sequence) • Auto preset system, determines all memory presets based on signal strength of station • Fine tuning • 9/10kHz switch • Lockswitch • Tone control • Local/DX switch • Dual time clock, adjustable sleep timer and Human Wake System with repeating beep tone (volume increases every 15 sec.). Includes carrying case and earphones ..... **$129.99**

**ATS-818CS** *(left)* **World Band Receiver with Programmable Cassette Recorder** 16 bands, continuous coverage 50kHz to 30MHz. AM/SSB/CW/FM modes; stereo via headphones, 45 memory presets. Tuning methods: Direct input, auto or manual scan, memory recall, rotary dial. AM wide or narrow filter, tone and RF gain controls, signal strength and battery indicator. Programmable cassette recorder, play and record LED indicator, auto-stop feature. Clock with dual time display, alarm and sleep timer. Uses seven "AA" batteries (not included). Includes AC adapter and external antenna adapter. 11.5"w x 7.75"h x 2.75"d, 5 lbs ..... Closeout **$219.99**

**ATS-818** *(right)* **World Band Receiver** All features above, w/out cassette recorder.. Closeout **$179.99**

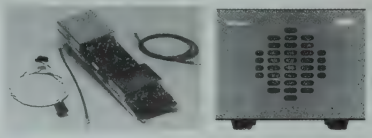
**ATS-606A Compact Digital All-Band World Receiver** *(left)* Continuous all-band coverage 153 kHz-30MHz. AM/FM (FM stereo with earphones). 54 memories, manual or keypad tuning, 1khz/step fine tuning, scanning, LCD display. Dual time clock and sleep timer. 5.75"w x 3.5"h x 1.25"d. **$139.99**

**ATS-909 FM-Stereo/MW/LW/SW PLL Synthesized Receiver** *(right)* Five tuning methods: Direct frequency, Autoscan, Manual, Memory recall and Rotary, 307 memories. Stereo via earphones, SSB reception. MW 9k/10k switch. AM wide/narrow filter and FM mono/stereo selector. Dual time with three timers and sleep timer. Clock feature displays 42 city times. RF gain/tone controls. Lock switch, recorder output jacks, battery and signal strength indicator. Uses 4 AA batteries or 6V DC; AC adapter incl. 8.5"w x 5.375"h x 1.375"d, 1.9 lbs... **$249.99**

**DT-200V Broadcast and TV Band Receiver** (left) Fits in shirt pocket or clips to belt. Covers AM and FM broadcast bands (FM stereo via headphone), plus the audio portion of TV channels 2 to 13. LCD display, up and down tuning buttons, auto-scan, 19 memories, automatic shut-off, built-in speaker. Belt clip and stereo earphones included. Uses two "AA" batteries. 4.375"h x 2.625"w x .75"d, 5 oz ..... **$69.99**

## DRAKE

**R-8B Communications Receiver** Covers 10kHz-30MHz (35-55MHz, 108-174MHz w/optional VHF converter) • Dual VFOs • 1000 memories • Multi-function scan • AM/FM/RTTY/CW/LSB/USB modes • 5 voice bandwidth filters • Built-in receive preamp/attenuator and noise blanker • S-meter • Passband offset • Selectable AGC • Built-in speaker • Multiple antenna inputs • Sequential tuning • 3 selectable tuning step sizes • Keypad entry of mode & bandwidth • Selectable sideband • Synchronous AM detector • RS-232 computer control • Speaker/recorder connections • Multi-voltage power supply • 13.5"w x 5.25"h x 13"d, 13 lbs ..... **$1499.99**



**1590 VHF Converter** *(left)* 35–55MHz and 108-174MHz ..... **$269.99**

**MS-8 External Speaker** *(right)* for R-8B .... **$59.99**

## YAESU

**VR-500 High Performance Mini Receiver** General coverage 100kHz-1300MHz (cell blocked) • CW, SSB, LSB and USB, AM and FM wide/narrow modes • Includes AM/FM broadcast, HF shortwave up to 16MHz, VHF/UHF TV bands, VHF AM aircraft band, and a wide range of commercial/public safety frequencies • Keypad entry • 1000 memory channels • 100 "skip" memories • 10 search memories • 100 dual watch memories • Priority • Powered by 2 "AA" alkalines or 9-16V DC • 2.2"w x 4.2"h x 1"d, 7 oz..... **$299.99**

**FRG-100B High Performance Communications Receiver** Covers 50kHz-30MHz – CW, SSB, AM modes; FM optional. 50 tunable memory channels and two band edge memories. Multi-function scanning. Adjustable SSB carrier offset, selectable AGC rate, noise blanker, all mode squelch, RF attenuator, twin 12 and 24 hour programmable clocks with on/off timer and sleep-timer, CAT system for PC control. Bright backlit LCD readout with adjustable control. 120/240 VAC or 12-14VDC @ 1.2A 9.375"w x 3.5"h x 9.5"d, 6.6 lbs *(See Price Guide for optional filters and high-stability oscillator)*..... **$549.95**

**VR-5000 Multimode Scanning Receiver** Continuous frequency coverage from 100kHz to 2.6GHz (cellular blocked) • Direct keypad frequency entry and a wide variety of scanning capability • 2000 memory channels, 100 memory banks with alphanumeric labels • Dual receive • Bandscope graphical activity monitor • "Smart Search" automatic memory loading feature • World clock with time zone map • 13.5VDC @ 0.7A • 7.1"w x 2.75"h x 8.0"d, 4.2 lbs..... **$619.99**

**VR-120D Mini Communications Receiver** Provides general coverage receive from 100kHz–1299.995MHz (cell blocked) on AM/FM wide and narrow modes; includes AM and FM broadcast, HF shortwave, VHF/UHF TV, VHF AM aircraft band, and a wide range of commercial and public safety frequencies. • Rugged outdoor-ready case • Ultra-long battery life • BNC antenna connector • 4-button operation • Easy access, wide-band coverage • Special "preset mode" aids in quick tuning • Super simple one-touch memories • Versatile 640 channel memory system • Option for AC or DC power with optional adapter/cable • Wide selection of scanning modes • 3.3"h x 2.3"w x 1"d, 6.9 oz..... **$189.99**

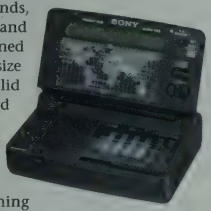

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

# SONY

## WORLD BAND RADIOS

**ICF-SW07** PLL synthesized • FM 76-108 MHz, SW 1621kHz-29.999 MHz, MW 530-1620kHz, LW 150-529 kHz • FM stereo at headphone jack • SSB/CW, AM synchronous detection • SW station call, my-memory tuning plus 4 other tuning methods: direct manual, scan or preset • 3000 frequency memories • One-push access to 8 major stations (BBC/VOA/DW, etc.) • Editable station labels • 24-city name/time display • Built-in timer • Clock with sleep timer and alarm • Requires 3 VDC or 2 "AA" batteries • Includes external active antenna module, AC adapter, stereo earphones, leather case • 5.3"w x 1.2"d x 3.6"d, 9.1 oz..... **$399.99**

**ICF-SW11** Compact • 12 bands including FM stereo, MW, LW and SW bands 1–9 • Easy analog tuning with LED indicator • FM stereo headphone jack for private listening in noisy environments • DC in-jack for optional AC adapter • 6.5"w x 3.75"h x 1.3"d ..... **$49.99**

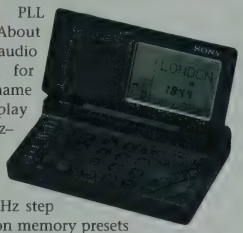


**ICF-SW12** 11 bands, including FM, AM and SW bands 1–9 • Designed for travel – compact size with protective lid • World time clock and universal time coordinator to calculate time in cities worldwide • Backlit LCD display • LED tuning Indicator for precise center-frequency indication and accurate tuning • Built-in alarm with convenient snooze button • Requires 2 "AA" cells • 4.3"w x 3.1"h x 1.2"d ..... **$89.99**

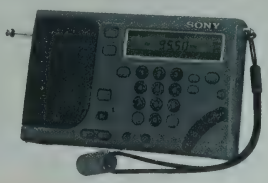
**ICF-SW35** PLL synthesized, dual Conversion super hetrodyne • Range: AM (530-1710 kHz), FM (76-108MHz) • FM stereo at headphone jack • Shortwave from 2250kHz-26.1MHz • UP/DOWN tuning buttons 1kHZ/5kHz tuning steps in shortwave • 50 memory presets (5 banks of 10 presets each) • 1 or 5 kHz step tuning on SW • Memory scan • Built-in digital clock with two wake times and 60-minute sleep timer • Dial illumination button, lock switch, attenuator • 2.5" speaker plus earphone jack • Includes cloth protector and SW guide • Requires 3V DC or two "AA" cells • 6.7"w x 4.5"h x 1.4"d, 16 oz ..... **$89.99**

**ICF-SW40** PLL synthesized • Analog/digital tuning • 14 bands • Range: LW/AM/SW (3850kHz-26.1MHz) and 76-108MHz FM (FM stereo-to-headphone jack) • 20 station memory presets • 1kHz step tuning • Built-in clock with dual standby function • 6.75"w x 4.25"h x 1.6"d, 15 oz..... **$119.99**

**ICF-SW77** PLL synthesized • Electronic rotary tuning • Preset, 10-key direct, manual and scan tuning • 150kHz–30MHz and 76-108MHz (FM stereo-to-headphone jack) • 50Hz tuning steps • Clock display • 5-event programmable timer • Sleep timer • 162 memory presets with station name tuning • SSB/CW and AM synchronous detection • Backlit LCD display • World time scale • Large, 5"x 3" speaker • Requires four "C" cells • Includes 120V adapter, earphones, belt and wind-up antenna • 10.8"w x 6.8"h x 1.8"d, 3.3 lbs..... **$469.99**

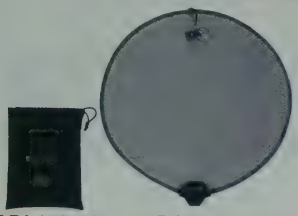


**ICF-SW100S** PLL synthesized • About the size of an audio cassette – ideal for travel • 24 city name and time display • Range: 150kHz–30MHz and 76-108MHz FM (stereo-to-headphone jack) • 1kHz step tuning • 50 station memory presets • Editable station labels • Auto scan, manual and 10-key direct access tuning • Built-in clock with sleep timer and dual standby • Includes stereo headphones, 120 VAC adapter, active antenna and soft carrying case • Requires 3V DC or two "AA" cells • 4.3"w x 0.9"h x 2.8"d, 8 oz..... **$349.99**



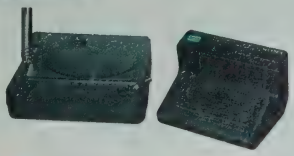
**ICF-SW1000T** PLL synthesized • 1 kHz step tuning • 130kHz–30MHz and 76-108MHz FM (stereo to headphone jack) • Built-in stereo cassette recorder with auto-reverse and timer record • SSB and synchronous AM detection • 32 memory presets • Built-in clock with alarm, dual standby and sleep timer • Requires 3VDC or 3 "AA" cells • Includes vinyl case, stereo earphones, hand strap and wind-up antenna • 7"w x 4.25"w x 1.6"d, 1 lb. **$399.99**

**ICF-SW7600GR** PLL synthesized • Manual and auto scan 1kHz step tuning • 10-key direct access tuning • 150kHz–30 MHz & 76-108 MHz FM • Dual conversion superhet • SSB/CW and AM synchronous detection • Multi-function LCD digital readout • Dial light and LED tune indicator • Built-in clock with sleep timer and dual standby functions • Record output jack • 9/10kHz MW tuning switch • External antenna jack • Large 3" speaker • Requires 6V DC or 4 "AA" cells • Hold button preventing accidental changes to presets • 100 station memory presets • World time/dual clocks • Includes vinyl case, wind-up antenna and handbook • 7.6"w x 4.75"h x 1.3"d. 1 lb., 5.5 oz..... **$179.99**



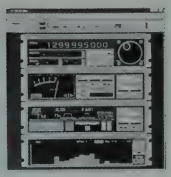
**AN-LP1 Active Antenna** Enhances sensitivity for clearer reception of even weak signals. • Light weight • Provides high sensitivity and noise reduction • Active antenna controller with rotary tuning • 19" loop that folds to 7" for portability • Easy to mount • Includes soft carrying case..... **$89.99**

**AN-1 Outdoor/Indoor Active Antenna** Improves LW/MW/SW reception from 150KHz to 30MHz. A low noise and interference reducing FET amplifier module, with a 59 inch telescopic whip, mounts outdoors or inside a window or attic. Includes a 39-foot coaxial cable which connects to a control box at the receiving position. An output lead with two alligator clips, or mini-plug, connects to the radio's antenna input. Uses 6 AA cells or 9V AC adapter (neither are supplied)..... **$99.99**



**AN-102 Indoor Active Antenna** Three ways to use! For SW, a coupler cord from the antenna controller plugs into to radio's external antenna jack, or a special coupler cord from the controller clips onto radio's external antenna. For LW/MW, radio is positioned next to controller, coupling without a direct connection. Includes antenna module with 45" whip antenna, antenna controller box and two coupler cables. Uses 4 AA cells (not included). **$79.99**

## ICOM



**PCR-1000-02 BON PC Communications Receiver** Connect the 1000-02 to a lap/desktop IBM-compatible for reception of a wide range of frequencies. *NOW* includes the Bonito software! Listen to favorite stations in the background while running other applications. 100% PC hardware external. Includes everything needed to connect to a PC: power supply, speaker, antenna and cable • 0.01-823.999MHz, 849.000001-868.999MHz, and 894.000001-1300MHz (cell blocked, guaranteed specifications 0.5-1300MHz, only) • WFM, FM, AM, SSB, CW • 1000 memories per file • Requires Windows® OS, 10MB free space, 16MB RAM, FD drive, RS-232C (38400+ bps) serial interface, 640 x 480 display ..... **$374.99**

**R-75 HF + 50MHz Receiver** Covers a wide frequency range from 0.03-60MHz and includes 101 memory channels. All mode – USB, LSB, CW, RTTY, AM, S-AM and FM. Alphanumeric readout with digital bar S-meter. Conventional tuning plus numeric key pad for direct input. Features include high stability receiver circuit, superior dynamic range, 2-level preamp, noise blanker, synchronous AM detection, twin PBT capability, front mounted speaker, filter options and optional UT-106 DSP. Operates from 13.8V DC @ 1.1A, or supplied AC adapter. 9.5"w x 3.75"h x 9"d, 6.6 lbs..... **$599.99**

**R-8500-02 Wide-band All-mode Receiver** 0.1-2000MHz (cell blocked) with 10Hz resolution. All modes: AM, FM, WFM, SSB, CW and optional TV-R7100 TV/FM adapter. Direct keyboard entry. Versatile scan functions; 1000 tunable multi-function memories; 20 banks of 40 channels plus auto-write and skip areas. 20 scan edge memory channels store 10 sets of frequencies for programmed scan, plus priority. Selectable AGC, noise blanker, tone, squelch, record jack. Selectivity: 500Hz, 2.3, 6 and 15kHz. RS-232C interface. Voice synthesized readout optional. 110/220V AC. 11.875"w x 4.875"h x 10.875"d, 16.5 lbs ..... **$1399.99**

## AOR

**AR-8200 MK III-B All-Mode Wide-Band Modular Handheld Receiver** Improved! Wider coverage, a new TCXO for greater stability, improved sensitivity and intermod, enhanced S/N and better audio. • 100kHz–3GHz (cell blocked) • FM-w, FM-n, super narrow AM, AM-w, AM-n, USB, LSB, CW modes • 1000 memories (20 banks x 50 channels, 40 search) • Two VFO, twin frequency readout • Alpha-numeric display • Telescopic antenna, detachable MW bar antenna • Band scope with save trace facility • Bar signal meter • Step-adjust, frequency offset, AFC • Optional memory expansion, CTCSS squelch/search, tone eliminator, 20 sec. record/playback and voice inverter • Noise limiter • Attenuator • Computer control and programming capability • Includes NiMH cells (charge while operating) • 2.4"w 5.7"h x 1.0"d, 0.75 lbs..... **$569.99**

**AR-3000AB All-Mode High Performance Profes-sional Monitor** 100KHz-2036MHz (cell blocked) • 400 memory channels • FM-w, FM-n, AM, USB, LSB, CW • Tri-conversion IF stage • Scans 50 channels per second rate • RS-232C port for computer control • 4 search banks • Manual tuning dial • BNC antenna connector • Scans 20 channels per second • 5.4"w x 3.1"h x 7.9"d, 2.4 oz.. **$1099.99**

**AR-8600 MK II-B Multimode Mobile/Base Receiver** Use anywhere - mobile, base or portable. Powered from an external 12V DC power supply, optional DC lead from a 12V vehicle or from an optional internal NiCad pack. • All mode receive – including super narrow FM • Programmable tuning steps to 50Hz • RS-232 port (control software available from AOR web site) • Coverage: 530kHz–3GHz (cell blocked) • 1000 memory channels (20 banks) • True carrier reinsertion in SSB modes • Improved front end with RF preselection of mid-VHF bands • Step adjust frequency, AFC • Noise limiter and attenuator • Versatile band scope with save trace facility • Twin frequency readout with bar signal meter • Separate volume and squelch controls • Write protect and keypad lock • Programmable scan and search • RS-2332 computer port • Flash-ROM memory (no battery required) • Slot card sockets • BNC socket for 10.7MHz output • 5.9"w x 2.2"h x 6.9"d, 4.9 lbs..... **$899.99**

**SDU-5500 Spectrum Display Unit** Visually identify signals and relative strength • Works with AR-5000B/AR-3000AB, ICOM base and other receivers with a 10.7MHz IF output • 10MHz bandwidth – 10kHz to 2600MHz • 5kHz/30Hz resolution • White/blue mono LCD..... **$1099.99**

## MFJ ENTERPRISES, INC.

**752C SSB/CW Audio Filter** Pull out stations from noise and interference. Peak, notch, low or high pass control helps eliminate hetrodynes and interference. Filters tune 300 to 3000Hz; bandwidth varies from 40Hz to almost flat; notches to 70dB. Switchable inputs for two radios. Uses 9 to 18VDC. 10"w x 2"h x 6"d ..... **$89.99**

**8100W Regenerative** 10' wire makes world-wide stations come in loud and clear. Tune international shortwave, SSB/CW, RTTY and packet. Covers 75-13M SW bands. Vernier drive tuning. Uses 9V battery, earphones or plug-in speakers. 7"w x 2.5"h x 6"d, 1 lb..... wired **$89.99**

**956 LW/MW/SW Preselector/Tuner** Improves reception of signals from 150kHz to 30MHz. Boosts signals while rejecting images, intermodulation, other phantom signals. 2"h x 3"w x 4"d..... **$49.99**

**Look For This NEW & Check Out AES' Latest Additions.**

# The Ultimate in Technology

## GRUNDIG

### Satellit 800 AM/FM/Shortwave Radio "The Best Radio on the Planet"

55 years of outstanding performance and service establishes Grundig as a leader in consumer audio. Decades of making the Satellit series radio defines them as the benchmark in shortwave technology. The Satellit's extensive frequency coverage includes Long wave, AM-broadcast and Shortwave, covered continuously from 100-30,000 KHz.; FM-stereo broadcast, 87-108 MHz.; VHF aircraft band, 118-137 MHz.

**ENGINEERED FOR THE BEST POSSIBLE RECEPTION**

- Single sideband (SSB) circuitry for listening to two-way communications, such as ham radio.
- Three built-in bandwidths, using electronically switched IF filters; 6.0, 4.0, 2.3 KHz.
- Synchronous detector for improved quality of AM and shortwave broadcast signals. Minimizes fading distortion and adjacent frequency interference.
- Selectable fast and slow AGC mode.
- High dynamic range, allowing for detection of weak signals in the presence of nearby strong signals.
- Excellent sensitivity and selectivity.
- Digital frequency display to 100 Hertz accuracy on AM, SW and VHF aircraft bands. 50 Hz when SSB used.
- A real tuning knob, like on traditional radios, but with ultra-precise digital tuning and with absolutely no audio muting when used.
- A modern, direct-frequency-entry keypad for instant frequency access and push buttons for fixed-step tuning.
- 70 programmable memories, completely immune to loss due to power interruptions. Memory scan feature.

**LEGENDARY GRUNDIG AUDIO**

- Outstanding audio with separate bass and treble tone control.
- FM stereo with headphones or external amplified stereo speakers.
- Includes high quality stereo headphones.
- Multiple audio outputs: line level output for recording, stereo headphone output.

**FULL ANTENNA CAPABILITIES**

- Built in telescopic antenna for SW, FM and VHF aircraft band.
- External antenna connections for the addition of auxiliary antennas, e.g. professionally engineered shortwave antennas; long-wire shortwave antennas; specialized AM broadcast band antennas for enthusiasts of AM DX'ing; FM broadcast band antennas; VHF air band antennas.

**MORE HIGHLY DESIRABLE FEATURES**

- Large, informational LCD display of operational parameters, measuring a massive 6 1/2" x 3 1/2". Easy to read and illuminated.
- Dual, 24 hour format clocks and dual programmable timers.
- An elegant, calibrated, analog signal strength meter.
- Auto backlight shutoff to conserve battery life.
- Low battery indicator.
- Operates on six internal "D" cell batteries or the included 110V AC adapter (220V AC adapter is available).

Dimensions: 21" L x 8 1/2" H x 9 1/2" W
Weight: 14.5 lb.

**Yacht Boy 400PE**

**Yacht Boy 400PE AM/FM/SW Radio**

• Digital Dual-Superhet tuner • 1.711-30 MHz SW range • SSB with fine tuning control • 40 random presets • Direct frequency entry • Manual and auto tuning • Built-in antennas • Supplementary SW antenna • SW antenna jack • FM stereo with headphones • LCD shows frequency, time and more • Dual 24 hour clocks • Alarm • Sleep timer • Battery operated or included AC adapter.

Dimensions: 7 3/4"W x 4 5/8"H x 1 3/8"D.

Yacht Boy 400PE AM/FM/SW Radio

**S350**

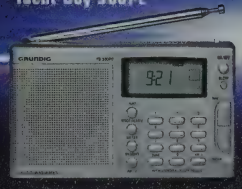
**Grundig's ALL NEW AM/FM/SW Field Radio**

• Sensitive analog tuner with digital frequency readout • 2.3-27.41 MHz SW range • Fine tuning control • RF gain control • Low-pass filter • Built-in antennas • External antenna jacks • Stereo line level out • Separate bass, treble control • Digital clock with alarm • Sleep timer • Headphone jack • Uses 4 D cell batteries or included AC adapter.

Dimensions: 10 1/2"W x 6 1/2"H x 3 1/2"D.

S350 AM/FM/SW Radio

**Yacht Boy 300PE**




**Yacht Boy 300PE AM/FM/SW Radio**

• LCD displays time, frequency and memory station • Display light for momentary illumination • Digital PLL synthesized receiver • Direct frequency entry system for instant access to station • 24 station memory presets • Sleep timer and alarm • FM/SW 360 degree rotary telescopic antenna / MW ferrite far antenna • External antenna jack for improved shortwave reception • Includes: AC adapter, carrying strap, case, earphones and three AA batteries.

Dimensions: 5 3/4"W x 3 1/2"H x 1 1/8"D

Yacht Boy 300PE AM/FM/SW Radio

**FR200 Emergency Radio**

**FR200 AM/FM/SW Radio**

• Four Band Tuning – AM/FM/SW1/SW2
• Built in power generator
• 90 seconds of cranking generates over an hour of power
• 2 1/2" diameter speaker
• Emergency light
• Fine tuning knob
• DC jack, earphone jack

Dimensions: 6 3/4"W x 5 3/4"H x 5 1/8"D

FR200 AM/FM/SW Radio

# GRUNDIG

**G-2000A Porsche Design Shortwave Radio** Designed for Grundig by F.A. Porsche, This radio has a titanium finish look with a genuine leather case that closes around the radio like a book and serves as a stand. • Ranges: (FM) 87.5–108MHz; (MW) 530–1710kHz; (SW) 2.3–7.4 and 9.4–26.1 MHz • Modes: AM, FM-stereo (with earphones) • Illuminated multifunction LCD display • Digital keypad and Up/Down manual tuning • 20 user-set station memorie • Clock with 12 or 24 hour selectable format, alarm (radio or buzzer) and sleep timer (10-90 minutes) • Built-in telescopic antenna for FM/SW and ferrite bar for AM • Includes a leather case, earphones, requires 3 AA batteries • 5.5" x 3.5"h x 1.25"d, 7.2 oz ..... **$79.99**

**E-TRAV VII**

**E-Traveller Digital Radio** Only 4.5" x 2.563" x 0.875" and weighing 5.3 oz. Sleek, design that fits into a pocket, briefcase or purse. Titanium color with black accents, combined with rich, rubberized side panels. Superior dual conversion superheterodyne circuitry for optimal sensitivity and selectivity. • (FM) 87.5–108MHz; (MW) 530–1710 kHz; (SW) 2–30MHz continuous coverage • Modes: AM, FM-stereo (with earphones) • Up/Down digital controls with auto-scan and manual tuning • 30 memories with scan • 12/24-hour selectable format clock, alarm and sleep timer • Built-in telescopic antenna for FM/SW and ferrite bar for AM • Includes a carrying pouch, 2 AA batteries, Shortwave Listening Guide..... **$79.99**

**MINIWORLD100 Portable Pocket AM/FM/SW Radio** Analog tuning, receives AM (530-1710 kHz). FM stereo and six shortwave bands: 5.8-6.4, 6.9-7.5, 9.4-10, 11.65-12.15, 15-15.65 and 17.5-18.4 MHz. LED tuning indicator. Includes a case, belt clip and earbud phones. Operates from 2 AA batteries (supplied). 2.75"w x 4"h x 0.75"d, oz..... **$29.99**

Secure
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# uniden

## CB RADIOS

**PC-78XL AM Mobile CB Radio** Full PLL-synthesized 40 channels • DSC, Dynamic Squelch Control • Instant channel 9 • Microphone and RF gain controls • Delta tune control - Fine tunes received signal and reduces interference • Noise blanker and automatic noise limiter • PA/CB switch • Dimmer control • TX/TX LED indicators • Antenna warning LED - lights when high SWR condition is present • 7.25"w x 8.625"d x 2.375"h, 4 lbs. 3 oz.... **$99.99**

**PC-78LTW** Same basic features as the PC78XL with the addition of NOAA weather channel reception with weather alert..... **$119.99**

**PC-68LTW Bearcat Pro Series 40-Channel CB Radio with Weather Alert** Features a rugged front microphone, backlit control knobs, 7 NOAA weather channels with WX alert, S/RF meter, a channel indicator and dynamic squelch control. Additional features include a channel selector, TX/RX indicator, instant channel 9, RF and mic gain controls and PA mode. 6.25"w x 2.125"h x 9"d, 3 lbs..... **$99.99**

**PC-68XL Bearcat Pro Series 40 Channel CB Radio** Same as PC68LTW above, but without Weather feature..... **$79.99**

**PRO-520XL Compact 40 Channel AM Mobile CB Radio** 4W • Instant channel 9 access • 4-segment S/RF meter • TX LED • LED channel indicator • RF gain • PA switch • Automatic noise limiter • 4.5"w x 6.75"d x 1.375"d, 1 lbs. 10 oz..... **$54.99**

**PRO-510XL Compact 40 Channel CB Radio** Incorporates state-of-the-art microelectronics into a sophisticated Euro-styled 2-way radio. Front mounted microphone, ANL Switch, S/RF LED meter. 4.5"w x 1.375"h x 7.5"d, 3 lbs..... **$39.99**

# Cobra

## CB RADIOS

**148NW ST Full Featured AM/SSB Mobile CB Radio** 12W PEP SSB RF output • 4W AM RF power (FCC max. allowed) • 120 channels • Dual conversion AM receiver • SoundTracker™ system • NightWatch™ dimmer control • USB/LSB/AM • Digital channel indicator • RX/TX indicators • Switchable noise limiter & blanker • RF-gain control • Hi/low tone switch • PA capable • SWR indicator • Instant channel 9 • 7.25" x 2.25" x 8.625", 6 lbs. **$179.99**

**19DX III AM Mobile CB Radio** Compact design • 40 channels • Combination S/RF meter • 4W RF output (max. allowed) • Instant channel 9 switch instantly switches from any channel to Emergency Channel 9 • TX indicator • CB/PA switch selects CB operation or PA operation • Mobile bracket • 4.563"w x 1.75"h x 7.25"d, 21 lbs ..... **$49.99**

**29WXNW ST Full-featured Weather Band CB Radio with Illuminated Front Panel** 40 channels, AM • Instant channels 9 and 19 • 7 NOAA weather channels with weather alert tone • 4W RF power output • SoundTracker™ system • Tactile controls • Dimmer control • Switchable automatic noise limiter and noise blanker • SWR calibration • PA capability • NightWatch™ illuminated front panel • 7.2w" x 2.2h" x 8.6d", 6 lbs..... **$129.99**

**HH-ROAD TRIP SoundTracker® 40 Channel CB Handheld with Antenna** Keep in vehicle for 24-hour emergency access, to communicate between vehicles, and to receive the latest weather information from 10 NOAA channels. SoundTracker® system cuts noise up to 90% and 4W of power gives up to 4 miles range. High/low power switch reduces power consumption, extending battery life. Operates on 9 AA alkaline or NiCads or off vehicle battery with the included DC cord with cigarette lighter plug. Included magnet-mount antenna provides maximum range and flexibility. 6.75"h x 2"w x 1.75"d ..... **$79.99**

## Cobra

### FRS RADIO

**PR-3000-2DX** *MicroTalk®* GMRS/FRS Two-way Radio X2 POWER TECH provides increased power for up to 6 miles and stronger penetration of buildings, cars, dense woods and other obstacles. 22 channels (7 FRS/GMRS, 7 FRS, 8 GMRS) • 38 privacy codes • Scan (channel/privacy code) • Vibra Alert® Silent paging • Call alert (10 selectable tones) • Selectable roger beep • Hands-free operation (VOX) • Selectable high/low power (GMRS) • Backlit LCD • Battery/power saver • Key lock • Belt clip and wrist strap • Requires 4 AAA batteries (per radio, not included). 2.25"w x 6.5"h x 1"d ..... pair **$79.99**

## KENWOOD

### FRS RADIO

**UBZ-LH14BK** FreeTalk™ 500mW • 14 channels • 38 talk groups (CTCSS) • Privacy talk voice • 4 call ring tones CORDS (In-Range Detect System) • Battery saver and auto off • Low battery alert indicator/beep • Works up to 40 hrs operation with 3 "AA" alkaline cells • Only available in black • 3.5"h x 2.25"w x 1"d ..... Closeout **$69.99**

## maxon

### 49MHz FM PERSONAL COMMUNICATORS

Low power, 1/4 mile average range • Dual conversion super-heterodyne receiver provides crisp, clear transmission • Use for group communications • Push-to-talk or voice activated - talk-to-transmit • No license required • Channels: 49.830MHz, 49.845MHz, 49.890MHz, 49.860MHz, 49.875 MHz

**MX-49SX** A single channel unit including a lightweight adjustable headset with retractable whip antenna and boom microphone with windscreen. Uses only one of first 3 channels (see above) • LED power indicator • battery charger jack • Range up to 1/4-mile • Uses two "AA" alkalines or rechargeable nicads • 5"w x 2.5"h x 1"d, 9 oz..... **$29.99**

**MX-49FX** The unique earphone and mic pick up voice vibrations from the ear canal for transmit audio and also provide received audio • Will not interfere with helmets • 5 selectable channels • Built-in antenna gives up to 1/8-mile range • Remote PTT button and channel selector. Uses 3 "AA" batteries. 5.5"w x 3"h x 1"d 6 oz..... **$49.99**

## ICOM

### FRS/GMRS RADIOS

**IC-F21GM** FRS/GMRS Radio *(left)* Perfect for sportsmen, families, clubs, hobbies, or when you need more power than an FRS radio offers. Choose from 15 higher power GMRS channels, 7 channels shared with FRS. Communicate with any FRS radio on these channels. All channels are pre-programmed internally allowing out-of-box operation, only a simple license required. Apply on the FCC web site, complete instructions included. 462.550-467.725MHz (UHF) coverage • 4/2/1W • CTCSS/DTCS signaling for more privacy • Scanning and "Tone Find" seek active channels • Meets various MIL-STD requirements • Drop-in charger included • 2.1"w x 5"h x 1.5"d, 10.6 oz .. **$149.99**

**IC-4088A** FRS FM Transceiver *(right)* Professional quality. Features 14 FRS channels, 38 group codes and enhanced conversation privacy with its built-in voice scrambler. Communication range is approximately 2 miles in wide open space and you get approximately 28 hours of operation from 3 AA alkaline batteries (not supplied). Splash resistant construction for outdoor use. Convenient rechargeable NiCad battery and rapid charger available, as well as optional headsets and microphones. 2.375"w x 4.563"h x 1.563"d ..... **$89.99**

### RECOMMENDED ANTENNAS FOR CB

**COBRA**

**HGA-1000** Magnet mount base loaded mobile antenna with coax and connector ..... **$19.99**

**HUSTLER**

**HQT** A 55" top loaded whip with Mirror Mount bracket. Comes with 12' cable with PL-259 connector. Chrome with a white coil ..... **$27.99**

**HQ-27M** A 55" top loaded whip with Trunk-lip Mount. Comes with 15' cable and PL-259 connector. Chrome with a white coil ..... **$36.99**

**LARSEN**

**NMO-27C** Base loaded mobile, less mt. **$33.99**

**NMO-TLP** Low-profile trunk mount for NMO-27C. 17' coax and PL-259 ..... **$29.99**

**NMO-MM** NMO-27C magnet mount. Comes with 12' coax and PL-259 connector.. **$32.99**

**SOLARCON**

**A-99** Base Station Antenna. Three-piece fiberglass design uses a half wave over a quarter wave section, and is tunable. Entire 17 ft. 8 in. length radiates producing about 3 dB gain ..... **$64.99**

**GPK-1** A-99 ground plane kit. Adds 30% more power gain and lower angle of radiation **$39.99**

**WILSON**

**W-1000** 5' base loaded mobile antenna. Available in three mount configurations. All come with 18' cable and PL-259 connector.

**ROOF** thru-hole mount..... **$57.99**

**TRUNK** mount ..... **$65.99**

**MAGNET** mount..... **$76.99**

### SCANNERS

**R-3-26** Communications Receiver Provides wide-band capability from 0.5–2450MHz (cell blocked). Features 2" TFT color display which may be changed to mono. Receive favorite TV shows, scan for wireless cameras like those in race cars. Use with a wireless camera to monitor activities. Display to a large monitor or recording device with A/V output terminal. Signal strength and band scope functions assist in finding the action. Includes 450 memories with alphanumerics, CTCSS, attenuator, and more. Long lasting Li-ion battery offers easy charging, lightweight performance, and up to 27-hour continual use on the mono LCD • PC program. capability • 2.4"w x 4.72"h x 1.28"d, 10.6 oz. **$339.99**

**R-5-06** Super Wideband Handheld Receiver Covers 495kHz to 1309.995MHz (cell blocked), AM, FM, WFM modes. Preprogrammed TV and shortwave memories. Listen to AM/FM broadcast radio stations, police, fire, military, aircraft, various amateur bands, and more. Crisp, clear audio. Large, backlit LCD shows frequency, operating and battery status, signal strength and alphanumeric naming for 1250 memories (including 200 auto-write scan memories and 25 scan edge pairs). • DMS • CTCSS/DTCS decoder • Internal bar antenna • Weather alert • PC programmable and cloning • Weather resistant • Rechargeable NiCad and external DC jack. 2.25"w x 3.4"h x 1"d, 6 oz .. **$199.99**

**R-10-05** General Coverage Pocket Scanning Receiver 500kHz-1300MHz (cell blocked). AM, SSB, FM wide or FM narrow modes. Programmable tuning steps. On-screen spectrum display, 1000 non-volatile memory channels in 18 banks of 50 channels. Scan by bank, mode, or program. Alphanumeric characters can be entered to identify channels and banks. Noise blanker and auto noise limiter. Auto frequency control (AFC) • Edge-lit display • 24-hr clock with timer • PC program. capability • Adjustable LCD contrast • Signal indicator • Power-saver • NiCads and wall charger (also will use alkaline or DC) • 2.3"w x 5.1"h x 1.2"d, 10.9 oz..... **$299.99**

**Look For This NEW & Check Out AES' Latest Additions.**

# uniden

## HANDHELD SCANNERS

**BC-60XLT-1 Handheld Scanner** *(left)* 30 programmable channels, 10 bands – cover 29-512MHz • LCD channel display • Programmable chain search • One-touch weather • Lockout • Memory backup • Keypad lock • Scan delay • Manual channel access • Track tuning • Keypad lock • Uses four AA alkaline or nicad rechargable batteries, or operates on AC with included 110V AC adapter • 2.625" w x 6.75"h x 1.5"d, 10.5 oz ..... **$89.99**

**BC-80XLT Handheld Scanner** Looks similar to 60XLT • 50 programmable channels, 11 bands, 5 banks - cover 29-956MHz (cell blocked) • 5 priority channels • On-touch weather • Manual channel access • Bands search • Full frequency LCD display • Uses four AA alkaline or nicad rechargeable batteries, or operates on AC with included AC adapter • 2.625"w x 6.75"h x 1.5"d, 10.5 oz..... **$119.99**

**BC-245XLT TrunkTracker II Handheld Scanner** *(middle right)* 300 programmable channels, 12 bands including Aircraft and 800MHz (covers: 29–956 MHz - cellular blocked) • Trunk tracking technology: scan and search, lock out, delay, and 10 trunk scan list • Programmable search • Memory backup • Manual channel access • Pre-programmed service search • Channel lockout • 10 priority channels • Rechargeable NiCad battery and wall charger • 2.5 "w x 6"h x 1.75"d, 12.5 oz..... **$219.99**

**SC-180B Sportcat** *(middle left)* Hear car and pit crews at auto races, the cockpit at air shows, or use it as a traditional scanner to keep up with emergency personnel. 100 programmable channels, 12 bands/800 MHz (cell blocked)/Air, 10 banks • 10 priority channels • Twin TurboScan™ and search • Manual channel access • Instant weather • Full frequency, alpha-numeric LCD • Rechargeable NiCad and wall charger • Includes sports frequency guide, AC adapter, rubber antenna, belt clip and earphone • 2.5"w x 1.625"d x 6"h, 11 oz. **$169.99**

**SC-200 Sportcat** Same as above with 200 channels, cloning capability and CTCSS..... **$199.99**

**BC-250D Digital-Capable* Handheld Scanner** *(right)* Continuous coverage from 25MHz to 1.3GHz (cell blocked) • AM/FM/NFM/WFM modes • TrunkTracker III - EDACS, Motorola, E.F. Johnson • 30 trunking channel indicator annunciators • 1000 channels, 10 banks • 12 service searches • CTCSS/DCS • S.A.M.E. weather alert • Alpha tagging (bank channel and search range) • PC programming and control • Holographic, backlit display • Backlit keypad • 2.5"w x 6.9"h x 1.75"d, 14 oz..... **$369.99**

**Requires installation of BCI25D card ($299.99) in order to monitor APCO P-25 digital systems.*

**Service Questions?**
***414-358-4087***
***Milwaukee, WI***

## BEARCAT SCANNERS

**BC-244CLT** 30 programmable channels, 10 bands • Full freq. LCD • Channel lockout • Mem. back-up • Manual channel access • Alarm clock • One-touch weather • 8"w x 5.5"d x 3"h, 1 lb. 6 oz..... **$99.99**

**BC-248CLT** AM/FM alarm clock radio with 20 presets • 50 programmable channels, 10 bands • One-touch weather • Full frequency display • Auto squelch • Lockout • Memory back-up • Manual access • Delay • 5 priority channels • 10"w x 5.5"d x 3"h, 1 lb. 6 oz ..... **$109.99**

**BC-278CLT** AM/FM Alarm Clock Radio with 20 presets • 100 channels, 12 bands • 800MHz coverage (cellular blocked) • One-touch weather with S.A.M.E. weather alert • Full frequency display • Auto squelch • Lockout • Memory back-up • Manual channel access • Programmable delay • Data skip key • Programmable search • Programmable service search • 5 priority channels • 10"w x 5.5"d x 3"h, 1 lb. 7 oz..... **$169.99**

**BC-350A** 50 channel, 11 band mobile/base scanner with Aircraft and instant weather • Super Turboscan™ @ 100 channels/sec. • Full frequency LCD display • Private channels, 20 programmable and scannable • Police channels • 10 programmable fire and emergency channels • Marine channels • Band search • Lockout channels • Mounting bracket, AC adapter, telescoping antenna cigarette and DC power cord • 5.25" x 6.8" x 1.625", 1.6 lb **$109.99**

**BC-780XLT Continuous Band Programmable Scanning Radio** AM/FM/WFM • 500 channels (10 priority), 10 banks • Covers 25-511MHz, 806MHz-1.3GHz (cell blocked) • Preprogrammed service searches • Full frequency, backlit LCD • TrunkTrackerIII • S.A.M.E. weather alert • SmartScanner™ • Clone feature • Alpha tagging • CTCSS/DCS • PC control • Base or mobile • Beep alert • Record every channel or every ID programmed (up to 1000 IDs) • 7"w x 6.56"d x 2.375"h, 41.96 oz..... **$299.99**

**BC-785D Digital-Capable* Base/Mobile Scanner** (looks similar to above) Continuous band coverage from 25MHz-1.3GHz (cell blocked) • TrunkTracker III - EDACS, Motorola, E.F. Johnson • S.A.M.E. • Full frequency LCD • 1000 channels, 10 banks • AM/FM/WFM modes • 12 service searches • Alpha tagging • Alphanumeric • CTCSS/DCS • Control-channel-only mode • Clone feature • PC programming & control • Record functions • Backlit controls • 7"w x 6.5"h x 2.375"d, 14.9 oz..... **$369.99**

**Requires installation of BCI25D card ($299.99) in order to monitor APCO P-25 digital systems.*

**BC-895XLT "Trunk-Tracker"** • 300 channels, 12 bands including Aircraft and 800 MHz, 10 banks • VFO control – covers 29-511, 806-956MHz (cell blocked) • 10 priority channels • TurboScan™ • One-touch weather with weather alert • Manual channel access • Built-in CTCSS • Trunk search • Scan lockout/delay • RS-232C port • Signal strength meter • Auxiliary tape output • Automatic store • 30 trunking channel indicator annunciators • 3-day memory backup • Programmable search • Lockout • 10.875"w x 3.625"h x 7.5"d, 3.5 lbs..... **$199.99**

**BCT-7 Bear Tracker 800** Pre-programmed with frequencies for highway patrol, D.O.T, local and county police, news, fire, aircraft and CB services. Selectable by state (except HI) • 12 bands • 100 channels • Highway patrol priority alert • Data skip • Weather scan • 13.8V DC or 110V AC • Mobile mount • 5"w x 7"d x 1.375"h, 1 lb 11oz . **$169.99**

# GARMIN

The colorful Gekos are the smallest and lightest waterproof GPS units available. Both the Geko 101 and 201 are inexpensive and offer a sleek, thin design with simple operation.

**GEKO-101** Sun-yellow case, economical. Perfect for navigational novices. Features such as one-touch waypoint marking make it a snap to use. Easily maneuver from one waypoint to the next using its 250-waypoint storage capacity with symbols, and trace along a route with PanTrack™. • Easy operation: five buttons for one-hand use • High-contrast display – 64 x 100 pixels with LED backlighting • 12-hour battery life on 2 AAA's • 250/0 waypoint/route storage • Automatic 3,000 trackpoint storage with PanTrack™ and TracBack® • Submersible for 30 min. at one meter • 1.9"w x 3.9"h x .96"d, 3.1 oz ..... **$99.99**

**GEKO-201** Distinctive canopy-green case, the powerful 201 allows more waypoint and route storage, as well as available PC and external power connectivity. It also offers built-in WAAS capability. Has a user-configurable trip computer and 10,000 trackpoints, as well as PanTrack™ and TracBack®. • 10 feet accuracy or less with WAAS • Five buttons for easy one-hand operation • 64 x 100 pixel, high contrast display • 12-hour battery life on 2 AAA's • 500/20 x 125 waypoint/route storage • Automatic 10 track storage • PC connectivity and external power ports • Submersible for 30 min. at one meter • Includes four interactive, outdoor games • 3.9"h x 1.9"w x .96"d, 3.1 oz..... **$139.99**

# GARMIN

**GPS-12XL Personal Navigator™ for Extreme Outdoor Enthusiasts** 12-channel receiver with external antenna for fast, accurate position fixes in tough conditions like tree canopy and urban obstructions. Rugged, compact case ideal for boaters, hunters or hikers. 500 user waypoints with alphanumeric name and user comments. 20 reversible routes of up to 30 waypoints each. TracBack™ navigation turns a track log into a route back home. Nine waypoint alarms. Over 1000 track log points, position averaging, emergency erase, and cloning features. Up to 12 hours operation on 4 "AA's"..... **$219.99**

**NAVTALK™ Navigator™/Cellular Mobile** Combines GPS with cellular technology into one handheld unit. During travel, location is displayed in real time on a built-in map. Send exact position to another NavTalk for display. **Cell phone:** Customized phone book • One-touch speed dial • Built-in pager • One-touch emergency dial (subscription required) **GPS:** Interstates with exit info, cities, airports, etc. Plug into a PC and download from optional MapSource™ CDs..... Closeout **$199.99**

**RINO-120 GPS-Enabled Handheld for FRS and high-performance GMRS** • Two-way communications up to 2 miles using FRS (up to 5 miles, using GMRS) • 0.5/1W (FRS/GMRS) • 14 channels, 38 squelch codes, and VOX • Voice scrambler • Vibration mode for "silent" calls • 12-channel, GPS receiver provides position accuracy of less than 10' when enabled • Peer-to-Peer positioning to transmit GPS location, showing distance and bearing • Navigation features include extensive waypoint storage, TracBack, multiple position formats and built-in trip computer • Basemap of the Americas (major cities, highways, thoroughfares, rivers, lakes, coastlines, borders, and railways) 8MB internal memory accommodates downloadable cartography from GARMIN's MapSource CD-ROMs • Uses 3 "AA's" • 8.5 oz..... **$249.99**

**GPS-72** Low-cost solution for land/marine navigation providing precise positioning using WAAS data. • Built-in quad helix antenna • High-contrast, gray-scale display ("large number" option) • Backlit display/keypad • Permanent data storage • Water resistant • 500 name and graphic waypoints, 50 reversible routes • Lat/Lon, UTM, Loran TDs, Maidenhead, MGRS, and user grid formats • Arrival, off-course, clock and proximity alarms • 1 MB memory for MapSource™ data • Trip computer with odometer, stopped time, moving/overall average, total time, max. speed..... **$159.99**

**IQUE-3600 PDA With Integrated GPS** The power of Palm OS integrated Que 5, Garmin GPS and mapping software. Look up appointments or contacts and get routing to their location with voice-guidance! New ARM processor enhances battery life, screen re-draw, graphics, and audio • SD expansion slot for storage • Flip-up, integrated GPS patch antenna for optimal reception • MP-3 player • Memo playback • Voice recorder • Rechargeable internal li-ion battery • 32 MB memory • Soft cover, metal stylus • Choice of Americas or Atlantic MapSource™ • High res, color, 2.16"w x 3.24"h display • 2.8"w x 5"h x 0.8"d..... **$549.99**

**eMAP DELUXE Electronic Map** 12-parallel-channel GPS and internal patch antenna with basemap showing cities, interstates, exits, etc. • Large, backlit screen • Zoom keys with one-hand rockerpad operation • Trip computer with odometer, stopped/moving/total time, moving/overall average and max. speed • Map page with direction, speed, time, distance/time to go, trip distance • Save up to 500 sites • 2000 track points • 12 hours on 2 AA's • Interface cable, 8MB data card, wrist strap • 2.4" x 5.5" x 0.8", 6.7 oz..... **$209.99**

**eTREX** *(left)* 12-parallel-channel GPS receiver and internal patch antenna packaged in a waterproof case. Side operating buttons for larger display. Simple menus and logical operations make position marking easy. • Compass or map navigation • Zoom keys • 500 user waypoints with name and graphic • 1 route with 50 waypoints • Resettable trip computer • Auto track log, 10 saved tracks to retrace a path • Up to 22 hours of use with 2 AA alkalines • 4.4"h x 2"w x 1.2"d, 5.3 oz .... **$119.99**

**eTREX SUMMIT™ Hiking Companion** *(right)* Similar to the eTrex but includes a barometric altimeter and electronic compass..... **$199.99**

**GPS-III PLUS Personal Navigator™** Dash mount. Road maps without plug-in cartridges. Selectable vertical or horizontal display. Dedicated keys for zooming from 0.2–360 miles, diagonal panning, auto start/stop timer, average/max. speed recordings. Rocker keypad, backlit LCD, full featured moving map plotting, user selectable navigation screens for compass or graphic highway guidance. Download data from MapSource CDs ..... **$299.99**

**STREET PILOT Dashboard Mount** Built-in map of the Americas with state and country boundaries, lakes, rivers, cities, state/interstate highways and some local thoroughfares. Accepts Garmin cartridges showing residential streets, addresses and points of interest. Large high resolution display • 3-level, amber, backlit screen and keypad • Auto turn-by-turn guidance with manual route selections • Auto waypoint and route naming • Storage for 100 waypoints • Trip planning • Zoom key • Dashboard screen showing current trip segment, distance, direction • Clock and arrival alarms. Up to 16 hours on 6 AA's..... Closeout **$399.99**

**ST PILOT III DL StreetPilot III Deluxe** *(right)* Portable GPS with auto routing and voice prompts alerting to upcoming turns. Shows position on a detailed color map. Automatically calculates a route from current location and displays turn-by-turn directions. Included MapSource™ City Navigator™ software provides more map detail, and, with downloaded detail, look up points of interest and view address and phone information. Portable for use in multiple vehicles. Also includes: StreetPilot III satellite navigation system • Dash mount • 12V adapter cable with speaker • 128MB data card • USB programmer for faster map downloads ... **$699.99**

**GPS-V DELUXE** North American turn-by-turn navigation with auto-routing for the shortest, fastest routes. Display prompts and audible alerts for turns, upcoming turns, course deviation, and distance to destination. Built-in, routable basemap provides detail for interstates, interstate exits (USA only), highways, North American rivers and lakes, plus commonly used metro streets. Maps from MapSource MetroGuide gives guidance to residential street-level detail. Look up services and points of interest. View address, phone number and map location. 500 user waypoints • 20 reversible routes • Trip computer with odometer, stopped time, moving/overall average or total time, maximum speed • Auto track log, 10 saved tracks • Operates on 4 AA batteries up to 25 hours • Permanent data storage • Water-resistant • Includes auto mount, cigarette lighter adapter, PC cable and City Select software with an all-unlock (no internet access required) • 2.32"h x 5.0"l x 1.62"w, 9 oz..... **$399.99**

*Software compatible with some Magellan and Garmin GPS units can be found under "Multi Media."*

## MAGELLAN
Navigation & Communications

The Meridian™ – Magellan's new premier line of rugged GPS handheld receivers, designed with serious navigators in mind.

**MERIDIAN™ GPS** The most affordable of the Meridian line, but low price doesn't mean sacrificing features. Expanded memory capacity for downloading maps with optional SD cards in 8, 16, 32 and 64MB • Large backlit display for easy map viewing • Rugged rubber armoring and high impact plastic for use in the harshest environments • Supports several languages including: English, French, German, Swedish, Finnish, Spanish, Italian, Portuguese, Dutch • Save Track-to-Route • Satellite status display • Built-in help • North-Finder with sun/moon positions • Sunrise/set calculator • 2MB database of U.S. cities, interstate/ state highways, political boundaries, major waterways and airports • Store 20 routes, 500 waypoints and 2,000 track-points • Vertical profile of track* • Horizontal profile* • Address Search ** ..... Closeout **$169.99**

**MERIDIAN™ GOLD** *(middle)* All features of the Meri-dian GPS, with ad-ditional 16MB database of U.S. cities, highways, political boundaries, major waterways and airports ..... **$249.99**

**MERIDIAN™ PLAT** *(right)* Meridian™ Platinum Possesses all features of the Meridian Gold and adds electronic compass and barometer that tracks barometric pressure like a weather station ..... **$349.99**

**MERIDIAN COL** Meridian Color is the top of the Magellan® Meridian line of superior, rugged GPS receivers. Shows you where you are on the industry's first full-color screen in a handheld GPS. Plus, it comes preprogrammed with an extensive 16 MB map, including highways, major roads, parks, navaids, waterways, airports and more. • New, vivid color, 120 x 160 pixel display • Superior tracking even in dense foliage and urban environments • 16 MBs of built-in North American street maps and navaids • Rugged design with high-impact housing of wrap-around rubber – it floats! • Infinitely expandable via industry-standard Secure Digital memory cards • Up to 13 hours of continuous battery life • Use optional MapSend® CDs to map out fishing, hunting or business trips • Includes 2 AA batteries, PC cable, lanyard • 6.5"h x 2.9"w x 1.2"d, 8.5 oz ..... **$499.99**

** Requires MapSend™ Topo for United States*
*** Requires any version of MapSend Software*

*Software compatible with some Magellan and Garmin GPS units can be found under "Multi Media."*

All SporTracks feature 12-parallel-channel, WAAS receiver • Satellite tracking with advanced Quadrfilar Helix antenna • 2.3" x 1.4" display • Backlit screen and keypad • 500 waypoints • 20 routes • 2000 track points • 76 datums • Indefinite data back-up, stored in non-volatile flash memory • Multi-language • Impact resistant, waterproof case

**SPORTRAK** Sporty, GPS system with worldwide database of major cities. Includes worldwide city points-of-interest. • 1 MB built-in memory for additional points • 9 screens: Status, Position, Nav 1, Compass, Nav 2, Plot, Road, Speed, Time • Alarms for proximity, arrival, anchor, cross track, error and GPS • Satellite status • Northfinder sun/moon positions • Sunrise/set, best fish/game calculators • Up to 14 hours use on 2 AA's • 5.6"h x 2.2"w x 1.3"d, 6.1 oz..... **$169.99**

**SPORTRAK MAP** A sporty, pocket-size, GPS system that includes mapping • 2MB database with interstate/state highways, parks, waterways, airports and cities • 4MB memory for downloads • 7 user-configurable screens: Map, Compass, Large Data, Position, Road, Speedometer, Trip Compass • Full 3D topo support • Alarms for proximity, arrival, anchor, XTE and GPS • Save-track-to-route • Satellite status display • Built-in help • Northfinder sun/moon positions • Sun-rise/set, best fish/game calculators • Horizontal profile and address search • PC cable • 2 AA batteries for up to 14 hours • 5.6"h x 2.2"w x 1.3"d, 6.1 oz . **$199.99**

**SPORTRAK PRO** Pocket-sized GPS with 32MB memory • 9MB database (interstate/state highways, major roads, parks, waterways, airports, cities, and marine navigation aids) • 23MB memory for downloads • Full 3D topo support • 7 user-configurable screens: Map, Compass, Large Data, Position, Road, Speedometer and Trip Compass • Alarms for proximity, arrival, and anchor • Save-track-to-route • Satellite status display • Built-in help • Northfinder with sun/moon positions • Sunrise/set, best fish/game calculators • Horizontal profile and address search • PC cable • 2 AA batteries for up to 14 hours • 5.6"h x 2.2"w x 1.3"d, 6.1 oz . **$269.99**

**SPORTRAK COL** SportTrak Color Vibrant, high resolution, color screen plus enhanced features in a handheld GPS with 32 MB built-in memory. • 9MB North American basemap (roads, waterways, parks, airports, marine navaids, buoys, etc.) • 23MB memory for additional downloads • Accuracy in all orientations – 3-axis electronic compass orients you no matter how you hold it • Built-in barometer • Waterproof and built tough • Includes 2 AA batteries, PC cable, lanyard • Easily fits in a pocket, 5.6"h x 2.2"w x 1.2"d, 6.8 oz..... **$449.99**

## uniden
### MARINE

**HH-940P** Marine VHF HT *(left)* All US, international, Canadian and 10 weather channels • Program. memory • All channel scan • Instant channel 16 and 9 • Triple watch • Weather alert • Electronic touch controls • Twist backlit LCD • 1W • Keypad lockout •Submersible • Rechargeable NiCad, belt clip, wrist strap, drop-in charger • 2.5"w x 1.25"d x 4.813"h, 8.8 oz..... Closeout **$99.99**

**ATLANTIS** Handheld 2-Way VHF Marine *(right)* Durable, reliable for any marine activity • All US/international channels • Waterproof • 5/1W output, switchable • Instant channel 16/9 • Triple watch • All N.O.A.A. channels with WX alert • Backlit keypad • Memory channel scan • Flexible rubber antenna..... Closeout **$99.99**

**VOYAGER** Ultra Compact VHF Handheld Marine Radio All USA, Canadian and international channels • All N.O.A.A. channels with S.A.M.E. weather alert • Triple Watch Plus™ • Channel 16 and 9 • Memory scan • 1W/5W transmit • Backlit keypad and display • Rubber grips/seal • Li-ion battery • AC and DC adapter and charging cradle included • Flexible rubber antenna • Meets JIS7 waterproof specs • 3.8"h x 2.4"w x 1.3"d, 8.8 oz ..... **$159.99**

**POLARIS** VHF Marine with Digital Selective Calling and Hailer *(bottom)* All USA, international and Canada channels • Instant channel 16/9 • 1/25 W transmit • Wireless mic capability – works with up to two wireless mic accessories • GPS input capable • Backlit LCD and keys (including mic) • S.A.M.E. weather alerts • Triple Watch Plus™ • 2-way hailer • Memory and weather scan • Assign channel names • Group call feature • Calling radio position indications with external GPS • Waterproof to JIS4/CRF46 standards • 3.07"h x 7.24"w x 6.61"d, 2.65 lbs..... **$179.99**

**OCEANUS** VHF Marine Radio *(not pictured)* All USA/international marine channels • 2$/1W output • Compact, rugged construction • QuikCommand™, one-touch channel 16/9 key on mic • Rubber grip mic • Backlit keypad • Triple watch • Memory scan • Weather alert/scan • LCD and dimmer • External speaker jack • PA..... Closeout **$129.99**

**SOLARA** 25W VHF Marine Radio *(top)* Full-featured • All USA/international channels • Instant channel 16 • 10 weather channels • Selectable 1/25 Watt output • High visibility LED display • Front mounted speaker for improved sound quality • Transmit LED indicator • Weather resistant housing, microphone and connector ..... **$99.99**


AES
Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

# Icom... more than just Ham gear!

## IC-A23
### Avionic Radio

Icom is the name pilots have come to know and trust. Fly the airwaves with the latest Icom airband transceiver! Its palm size is very convenient for carrying, yet it's full of the useful features you've come to rely on. With water resistant construction for safe operation in rainy conditions. *The IC-A23 has been named "Best VHF Handheld" by The Aviation Consumer magazine in its Gear of the Year issue, 8/02.*

- Full 5 Watt output power
- All 760 com channels (118.000 MHz - 136.975 MHz)
- VOR navigation (Rx only, 108.000 MHz - 117.975 MHz)
- 25 kHz tuning steps
- 200 memory channels with 6 character names
- Built-in voice recorder

## IC-M1V
### Marine Radio

Only one marine radio made its way onto Powerboat Report's Top Ten product list*: Icom's M1V. Could its long-lasting Li-Ion performance (over 15 hours on 1 charge), waterproof construction (submersible, actually) and reasonable price have had anything to do with the award? Judge for yourself and get one today.

**Best products of 2002, 1/03*

- Powerful 5 watts of talk power
- Lithium Ion power = longer battery life
- Ultra compact, JIS-7 grade waterproof transceiver
- Waterproof speaker-microphone operation (optional)
- Extra large LCD with alphanumeric indications
- Simple one-handed operation

## IC-4088A
### FRS Radio

Want professional quality in personal communications? The IC-4088A is an FRS radio that combines simplicity, convenience, and range. Whether cross-country skiing, hiking, or organizing a group of people, this professional quality radio combines rugged construction with the features that you need the most - with no fees or dues! Optional "stubby" antenna version available soon.

- High performance antenna for extended range
- 14 FRS channels and 38 group codes
- Built-in voice scrambler
- Wide selection of optional accessories
- Weather resistant construction
- AA or Ni-Cd battery operation

What are you waiting for?

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# ICOM

## AIRCRAFT

**A-23** Airband HT Easy to operate featuring large, clear LCD. Record and play back conversations with built-in recorder. Large capacity rechargeable NiMH battery is standard. Convenient for carrying with supplied belt clip. Water resistant, JIS-4 grade, allows safe operation in rain. 5W (PEP), 1.5W (carrier) output • All 760 "COM" (108MHz-136.975 MHz) and weather channels • VOR navigation (rx only) • 200 alphanumeric memories • PC programmable • 2.28"w x 4.22"h x 1.13"d, 12 oz. **$399.99**

## MARINE

**IC-M3A** Mini Handheld Marine VHF Radio *(left)* All US, international and 10 weather channels with alert • Independent channel 16 • Full function and priority scanner • Dual and tri-watch monitors channel 16 while operating another • 1/5W • Backlit display • Water resistant • Includes 6 NiCads and wall charger • 2.25"w x 5.5"h x 1.75"d, 14.4 oz..... **$159.99**

**IC-M1V** Marine Handheld *(right)* All US, Canadian, international and weather channels with alert • Normal and priority scan • "Tag" scan system • 5W • Dual/tri-watch • PC programmable • Alphanumeric • Waterproof • 1400mAh li-ion battery • 2.1"w x 5.5"h x 1.18"d, 9.9 oz..... **$199.99**

**IC-M402W02** Marine VHF Radio All US, Canadian, international and 10 WX channels with alert • Normal/priority scan • Dual/tri-watch • 2-digit LCD with scrolling channels • 4-level backlighting • Key illumination • DSC capability • Built-in SC-101 selective calling • GPS repeater (with added GPS) • "Tag" scan • 25W/1W • Waterproof • 6"w x 2.6"h x 5.5"d, 2 lbs..... **$199.99**

**IC-M45AW** VHF 25W Marine Transceiver Water-resistant gaskets, including mic • One-piece aluminum diecast chassis • Large backlit display • 'Tag' scan system adds/deletes channels at switch push • 'Smart' mic changes channels or selects power without using panel • Dual/tri-watch monitors channel 16 while operating another • All international, US channels and 10 weather channels with alert • Instant access to ch. 16 and call channel • Low battery indicator • 0.79"h x 2.36"w x 5.5"d ..... **$149.99**

**M-710** (21) SSB Marine Transceiver Rugged, 150W, 1136 channels with 160 user-programmable memories, PC programmable, alphanumeric readout on large LCD.General version without 2182kHz alarm, marine bands only . **Special Order $1399.99**

**M-802** DSP Marine SSB Transceiver A marine radio with DSP, large backlit LCD with dot matrix characters, and built-in digital selective calling. Also boasts one-touch e-mail and GPS input. • 0.5–29.99MHz rx • 1.6–2.99, 4–4.99, 6-6.99, 8–8.99, 12-13.99, 16–17.99, 18–19.99, 22–22.99, 25–27.5 tx • J3E (SSB), J2B (AFSK) F1B (FSK), A1A (CW), M3E (AM, rx only) • 1355 channels • Selectable 150/60/20W • 9.2"w x 3.7"h x 9.1"d, 10.3 lb. (main) • 8.3"w x 4.4"h x 3.1"d, 1.2 lb. (controller) • 4.4"w x 4.4"h x 3.1"d, 0.8 lb. (speaker).... **Special Order $1749.99**

# YAESU

## AIRCRAFT

**VXA-700** *"Spirit"* Airband, 2M Transceiver (4 transceivers in one!) AM airband, 2M amateur, NAV-COM, 5W output, VOR/CDI display (121.5MHz emergency) • NOAA WX with alert • FM broadcast band receive (88-108MHz) • Submersible at 3' for 30 minutes • Magnesium die cast case (superior RF noise shielding plus ruggedness) • High res, backlit, dot matrix display • 190 alphanumeric memories • Back lit keypad • Supplied with 1300 mAH Li-ion battery, 117V charger, headset adapter, antenna and belt clip ..... **$419.99**

**VXA-150** Pro V Professional-grade, compact, airband handheld transceiver. Trans-mits at 5W (PEP), 1.5W carrier output on 118-136.975MHz "COM" band, and receives 108-117.975MHz "NAV" band. Features exclusive two-mode display with upright or inverted viewing when on a belt, NOAA weather monitoring, 8-character alphanumeric display, 50 memories (100 "book"). 2.3"w x 4.3"h x 1"d, 12 oz..... Closeout **$269.99**

**VXA-150 DELUXE** Same as above, with addition of antenna adapter and NiMH battery .... **$299.99**

**VXA-210** Pilot Professional-grade airband transceiver with VOR navigation display meeting MIL-STD 810 ruggedness specs. 5W (PEP) transmit, 1.5W carrier output. Receive on 118-136.975 MHz "COM" and 108-117.975 MHz "NAV" bands. The VOR navigation display features DVOR/CDI modes. Receives all NOAA weather channels. Has 150 memories, and 8-character alphanumeric display. Includes headset adapter, intercom, and external PTT switch. PC programmable. 2.3"w x 4.3"h x 1.2"d, 12.2 oz... C/O **$299.99**

**VXA-210 DELUXE** Same as above, with addition of antenna adapter and NiMH battery .... **$354.99**

# KENWOOD

## MARINE

**TKM-707** SSB Marine Transceiver A high-performance unit designed to meet stringent marine operation demands. Utilizes heavy-duty, rustproof, aluminum chassis and highest quality parts to maximize performance • 150W RF output • 2-23MHz marine operation with 500kHz-30MHz general receive • 198 memories • Multi-scanning • Emergency alarm built-in ..... **Special Order $1249.99**


DATE _____ 20 ____

THIS CERTIFICATE ENTITLES _____

TO MERCHANDISE VALUED AT _____

PRESENTED BY _____

Certificate expires one year [illegible] date of purchase (subject to applicable [illegible] rules). [illegible] It can be replaced if lost or stolen.

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621 Commonwealth Ave. Orlando, FL 32803 407-894-3233 1-800-327-1917

4640 South Polaris Ave. Las Vegas, NV 89103 702-647-3114 1-800-634-6227

OREGON SCIENTIFIC

## SECURITY ITEMS

**PE-319 Pedometer with Personal Security** Stay at ease while exercising away at home. This pedometer features a 120dB panic alarm for personal security and emergency. Displays elapsed workout time, distance walked and a 12/24 hour clock on its backlit 2-line LCD display . **$19.99**

## ALL HAZARDS WEATHER RADIOS

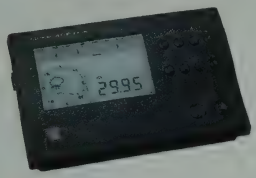
**WR-102 Portable S.A.M.E. Weather Radio** A handheld all-hazards weather radio that receives and displays alerts, watches and warnings that apply only to a local area using S.A.M.E. technology • Monitors 24-hour weather forecasts and alerts • Scans all NOAA channels • Monitors U.S. emergency alert system with auto activation • Dual LED power/alert indicator • Digital clock land alarm with snooze ..... **$49.99**

**WR-196T Desktop S.A.M.E. Weather Radio** AM/FM radio with ten memory presets • Digital tuning, including seven NOAA weather channels • Dual LCD display for clock and dot-matrix text message • Automatic audible and visual alert activation plus blinking LED warning • Standby mode to mute speaker • Digital clock, calender, alarm, and 5–120 min. sleep timer • Operates from 3 AA's or AC adapter • 6.75"h x 5.25"w x 0.875"d, 0.75 lb.... **$69.99**

## WEATHER STATIONS

**RGR-122 Long Range Rain Gauge** Self-emptying and provides cumulative and daily precipitation totals for up to nine days. Its wireless, long range capability allows the collector to be placed up to 300 ft. from the main unit. The collection data is broadcast at 433MHz to the indoor base unit and displayed on an attractive easy-view 3.5"h x 1.5"d x 2.5"w LCD console. Includes indoor temp. gauge. Requires 2 "AA" batteries in both collector and main units ..... **$59.99**

**WMR-968 Cable Free™ Weather Station** Innovative wireless outdoor sensors with 300 ft. range operates on solar power for simple installation and sophisticated ease. Track and record over 20 separate weather conditions by a press of the touch-sensitive jumbo LCD display screen ..... **$399.99**



**WM-918 Complete Weather Monitoring Station** Monitors over 20 weather and environmental conditions. Sensor range up to 40'. Self-dumping electronic rain gauge, outdoor temp. and humidity sensor, anemometer (wind speed/direction), and all wiring. Desktop control panel displays clock, calendar, alarm, and weather. Also features weather forecasting displaying local 12/24-hour forecasts. Uses 8 AAA batteries, AC adapter included. 7"l x 4.25"w x 1.5"h, 14.8 oz ..... **$229.99**

**WMR-112A CableFree™ Weather Station** Uses innovative, wireless, outdoor sensors for simple installation. Operates on 433MHz at a 300' range from remote sensors. • Measures outdoor temperature (-4°F to 140°F) and relative humidity (25%–95%) • Measures indoor temperature (0°F to 122°F), relative humidity (25%–95%) and barometric pressure (17.27 to 31.02 in.Hg) • Indoor touch-screen console, wall mount or desktop • AC adapter • Requires 12 "AAA" and 6 "AA" batteries (not included) • 7.75"h x 3.5"w x 1.4"d ..... **$199.99**

## OTHER WEATHER PRODUCTS

**RM-116E Exactset™ Radio Controlled Clock** *(left)* The most accurate of alarm clocks. Sets itself automatically by receiving time signals from the U.S. Atomic Clock. Features blue HiGlo™ backlight LCD, snooze, day/month/seconds and automatic adjustment for Daylight Savings Time..... **$29.99**

We accept I.M.P.A.C.® Government Credit Cards

**EMR-812A Cable Free™ Thermometer** The latest in radio frequency technology! This Cable Free™ thermometer with jumbo display shows you the indoor temperature and the temperature from up to three remote locations. Includes one easy-to-install remote temperature sensor that can be placed up to 90 feet from the main unit – with no wires to install anywhere! • 433MHz operation • High/low memory and temperature alarms • Choose and change between Celsius and Fahrenheit • Includes one wireless sensor . **$29.99**

**THR-138 Extra Sensor** ..... **$24.99**

Emerson

**ESR-220 Solar/Dynamo-Powered Radio and Flashlight** Built-in NiCad recharges using the solar panel or dynamo generator. Install 3 AA batteries (back-up only). Also power and recharge using optional AC adapter • Bright beam flashlight with two modes: steady or flashing • Warning siren feature, use alone or with flashing light • Built-in antenna • 8.5" x 3.5" ..... **$29.99**

**PDC-803 Electronic LCD Digital Compass** Easy-to read LCD screen displays heading as a cardinal point (e.g. N, NW, SE) with numeric digits in degrees (e.g. 17°) plus a directional compass arrow • Backlight for night use • One touch calibration corrects for local magnetic interference • Mounts on dashboard with velcro • 3 AAA batteries included • 1.875"w x 3.625"h x 2.75"d, 4 oz ..... **$29.99**

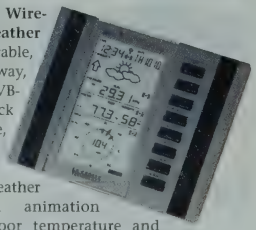
uniden

**WX-500** Receives all 7 NOAA weather channels and provides multiple weather alerts through text messages, alert tones, and actual broadcasts. S.A.M.E. alert (specific location codes are broadcast alerting users to severe conditions in immediate area). A 9-volt battery back-up in the event of a power failure. Alarm clock feature uses the large LCD readout, which has selectable backlit control. DC lighter adapter cord and 120V AC adapter included. 5"w x 5"w x 1.875"d, 19 oz. C/O **$39.99**

## WEATHER STATIONS

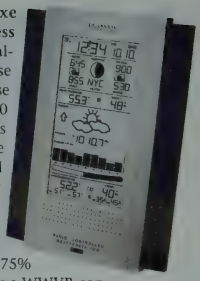
**WS-2010** **Professional Wireless Weather Station** Indoor temperature (32°F to 158°F), humidity, and barometric pressure (from remote) • Outdoor temperature and humidity (wireless, solar powered) • Min/maximum data for all readings with time and date recorded • Air pressure with 24-hour bar chart history • Forecast icon and pressure trend indicator • Wireless rain gauge (solar powered) tracks rainfall amount for last hour, last 24 hours, total • Wireless wind-gauge (solar powered) tracks speed and direction - up to 330' range • Includes wind-gauge, rainfall sensor, indoor temperature/humidity sensor, and outdoor temperature/humidity sensor • Receiver and sensors require alkalines (not included) • Free standing or wall mount • 8.5"w x 1.25"d x 6.5"h (receiver) ..... **$389.99**

**WS-2010-13** **PC Interface for WS-2010 Wireless Weather Station** Connects to serial port • Receives and stores all data • Included software calls in data and removes from interface, storing in a data file • Without computer connected, can act as a data logger, storing several days collected data • Selected data can be exported as an ASCII file for use in other WIN 95/98 programs (Excel, etc.) • Generate graphs, charts, and data lists • Operates on 2 AA batteries (not included)..... **$129.99**

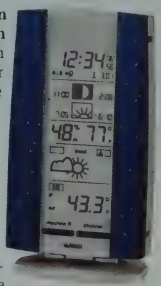


**WS-2310** **Wireless/Wired Weather Center** Direct cable, or up to 80' away, wireless • WWVB-controlled clock shows day, date, minute, second, alarm, and time zone • Weather forecast with animation • Indoor/outdoor temperature and humidity, wind chill, dew point, rainfall (24 hrs, 1 hr, and total) • Wind speed (m/s, knots, bft, km/h, and mph) and direction with trend • Barometric pressure • Alarms: time, storm warning, weather (air pressure, temperature, humidity, rainfall, wind speed, and wind direction) • Stores up to 176 sets of weather data in memory for weather analysis and graphical display on PC (software CD-ROM and cables included) • Uses 3 AA batteries (not included) or included AC adapter..... **$249.99**

**Used & Demo**
Equipment lists
**Updated regularly on the web.**
Check them out and order **On-line**



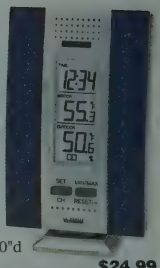
**WS-8015U** **Deluxe Sun/Moon Wireless Weather Station** Calculates sun/moon rise and set and moon phase based on choice of 250 North American cities • Indoor and remote temperature and humidity • Barometric pressure with 30-hour history chart • Forecast icon, based on changing air pressure, about 75% accurate for 12-20 hours • WWVB-controlled 12/24-hour time and date • Temperature alarm for remote temperatures • Storm warning indicator • Receiver and remote require alkaline batteries (not included) • One remote sensor included, can receive as many as three remotes, up to 80 ft. range • Wall mount or free-standing utilizing fold-out stand ..... **$159.99**



**WS-9016U** **Sun/Moon Wireless Weather Station** WWVB-controlled time with manual settings • Calendar display, date, time zone • Alarm function with adjustable snooze • Sun/moon data for 45 U.S. locations • Weather tendency and air pressure trend • Indoor temperature and humidity display • Min./maximum outdoor temperature record with time • Receiver and remote require alkaline batteries (not included) • 4"w x 1.4"d x 6.75"h..... **$79.99**

**WS-7038UF** **Wireless Rain Gauge** Receives rain data from included, remote, self-emptying, rainfall gauge located up to 80' away • Shows rainfall for past hour, 24 hours or last rain period until manually reset • Rainfall history – view last 7 days, weeks, or months – scroll period by period on graph • Rain alarm function • Wall mount or free-standing with removable stand • 12/24-hour time mode, manual time set • Receiver/remote use 2 AA alkalines each (not included) • 3.5"w x .75"d x 4.2"h (receiver) ..... **$59.99**

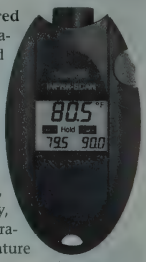
**WS-7075UF** **Wireless Forecast Station** Indoor/remote temperature, indoor humidity • Forecast icon, based on changing air pressure, about 75% accurate for 12-20 hours • WWVB controlled 12/24-hour time, dual time alarms with snooze • Receiver and remote require alkaline batteries (not included) • Wall mount or free-standing with removable stand • 4.5"w x 1.0"d x 7.0"h • 80' range .. **$59.99**



**WS-7013U** **Wireless Temperature Station** Indoor/remote temperature with minimum and maximum memory (time recording for remote temperature) • 12 or 24-hour mode, manual set time • Wall mount or free-standing (removable) • Receiver and remote use 2 AA alkalines each (not included) • Up to 80 foot range • 2.75"w x 4.25"h x 1.0"d (receiver) ..... **$24.99**

## OTHER WEATHER PRODUCTS

**WT-5431** **Projection Alarm with Remote Temperature** • 12 or 24-hour time, dual alarm with snooze – WWVB control, month/day, date • Time zones, GMT to 12 hours • Indoor and remote temperature • Projects from 3-10 feet onto wall or ceiling with adjustable rotation, intensity; auto focus • Backlit display when a button is pressed • Wall transformer (included) or 3 AA alkalines; remote requires 2 AAA's (not included) • 5.25"w x 3.5"h x 1.25"d..... **$49.99**



**IR-101** **Infra-Scan Infrared Thermometer** Measure temperature in a fraction of a second without touching the object being measured. Useful for contact-free measurement of stationary and moving objects, finding cold spots in a home, checking food stuffs, heating and air conditioning, hot components (machinery, engines, etc.) • Single key operation • Back-lit LCD • Temperature range: -4°F to +572°F • Uses 4 LR-44 button cells (included) • 2.2"w x 0.9"d x 4"h ..... **$49.99**

**WS-8017U-OAK** **Atomic Clock with In/Outdoor Temperature and Moon Phase** Radio-controlled analog wall clock that sets itself using transmissions received from WWVB and the U.S. Atomic Clock in Colorado. Remote wireless outdoor temperature sensor/transmitter works on 433MHz, up to 82 feet away. Black with oak trim. • 12/24 hour time display (hour, minute, second) • Alarm setting with snooze • Calendar display • Weekday display (select English, French or Spanish) • Current moon phase display • Time zone setting • Daylight savings time ON/OFF • °C or °F temperature display selectable • Desk or wall mount • Clock and transmitter require 2 AA's, not included • 12.2"w x 8"h x 1.2"d (clock) • 1.6"w x 5"h x 0.9"d (transmitter) ..... **$39.99**

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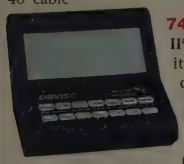
# DAVIS

## WEATHER STATIONS

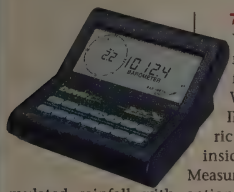
Sophisticated, professional quality for home, business, or scientific use. Add WeatherLink for detailed, long-term analysis using a PC. Standard weather stations assemble quick and easy with plug-in cable connections using modular RJ connectors. Cables are connected to the console through a junction box with 8' cable. Console includes AC power adapter with battery backup (not included).

All stations include • Time in 12/24-hour format and date • U.S. and metric measure • Highs and lows • Calibration of some functions for increased accuracy under difficult conditions • Sequential scan and display of readings • Alarms for selected functions • Console with LCD and reversible base for use on desk, shelf, or wall • Anemometer with 40' cable



**7440 Weather Monitor II®** Shows all weather monitoring functions and clock on an back lit, 1.875" x 4.375" LCD display. • Temperature readings of –50 to 140°F (outside), 32° to 140°F (inside) • Wind calculations, including direction in 1° or 10° increments, speed to 175mph, and high wind speed and wind chill to –134°F • Barometer measuring barometric pressure with memory recall and trend arrow • Indoor high and low humidity from 10%-90% (outside optional) • Alarms for temperature, wind speed, wind chill, humidity, time and barometric trend • 5.25" x 5.875" x 3" ..... **$269.99**

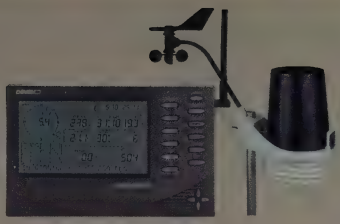
**7859 External Temperature/Humidity Sensor** For 7440. Measure outside humidity, dew point and temperature. Includes 40' cable ..... **$119.99**



**7425 Weather Wizard III®** Offers most monitoring features of the Weather Monitor II, except barometric pressure and inside humidity. Measure daily and accumulated rainfall with optional rain collector. Optional Weather-Link software will process and store data through an IBM®-compatible or Mac®. • Metric or U.S • 5.25" x 5.875" x 3"..... **$179.99**

**7852 Rain Collector II** For 7440, 7425 and 7415. Read both daily and accumulated rainfall in 0.01" increments. Comes with 40' cable..... **$69.99**

**7400 Perception II®** State-of-the-art weather technology. Ideal for keeping track of climate conditions inside the home. No installation required. Looks similar to 7425. • Indoor temperature -32°F to 140°F • Barometric pressure with memory recall • Humidity • Alarms for temperature, humidity, time, and barometric change..... **$139.99**

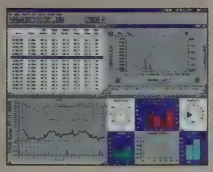


**6150 Wireless Vantage Pro** The latest in weather technology! Offers forecasting, on-screen graphing, and more. Monitors barometric pressure, temperature, humidity, rainfall, and wind speed and direction. Quick view icons show the forecast at a glance – sunny, partly sunny, cloudy, rain or snow, while a moving ticker-tape display gives more details. An innovative integrated and solar powered sensor suite combines rain collector, temperature and humidity sensors, and anemometer into one package – making setup easier than ever and improving performance and reliability. Typical wireless range is up to 150-200ft. For improved accuracy, the temperature and humidity sensors are housed inside a shield which protects solar radiation and other sources of radiated and reflected heat ..... **$539.99**

**0281 Wind Wizard™ Wind Speed Indicator** Handheld unit accurately measures wind speed from 0-60MPH in miles/hour, meters/sec., and Beaufort. Readout dial is supported by sapphire jewel bearings and steadied by a rare-earth, magnetic, damping system. Folding handle latches securely into place. No batteries needed. 3.625" x 2.875" x 1" folded, 2.5 oz..... **$47.99**

**0271 TurboMeter™ Wind Speed Indicator** A turbine, suspended on sapphire jewel bearings, responds to the lightest winds • 3-digit LED display for viewing in sunlight or at night • Reads speed in miles/hour, knots, feet/minute, or meters/second. • Requires 3 "AAA" batteries (not included). 5.625"h x 2.625"w x 1.125"d, 3 oz..... **$139.99**

## SOFTWARE



**7862/7866 WEATHERLINK®** Links PerceptionII, Weather WizardIII, or Weather Monitor II to a PC or Mac. Create graphs, calculate average conditions, generate summaries, analyze trends, and more..... **$149.99/$139.99**

# MIDLAND®

**WR-300 Specific Area Message Encoding Weather Radio** • 20 programmable counties • AM/FM and 7-channel weather radio • Time and alarm clock with full date display • 10 memory channels • Ability to add up to 8 alerts (i.e. AMBER) • Ability to remove alerts (i.e. flood - if you live on a hill) • Choose between single, multiple, or all-county codes • Uses analog and digital signaling.. **$49.99**

**WR-30 Weather/Hazard Alert Radio with FM Radio and S.A.M.E.** Alert function allows the user to set the weather radio to sound an alert when it receives a weather or hazard broadcast from NOAA. • Monitor up to 20 user-selectable areas • Digital front message displays 56 types of S.A.M.E. watches or warnings • Warning siren and voice alert • Alert status lights for *Statement-Watch-Warning* • FM radio, with 5-station memory, automatically switches to weather alert when NOAA broadcasts an alert • Built-in digital clock • Backlit display • Telescoping antenna and external antenna jack • Operates on AC power or 4 AA battery backup • 7.25"w x 5"h x 1.75"d..... Closeout **$44.99**

We accept I.M.P.A.C.® Government Credit Cards

**74-200 Digital Weather/Hazard Alert Monitor** Provides 24-hour National Weather Service information from 7 NOAA channels for maximum capability up to 50 miles. Eight-character LCD displays up to 56 types of S.A.M.E. watches or warnings and monitors status of user selectable warning system. Weather Command button switches from alert mode to full monitoring. Clock displays time and date and has alarm functions. Telescoping antenna, external antenna input and alert device output jacks. Operates from 9-14VDC and 117VAC with supplied adapter. Accepts 9V battery for backup during outages. 7.75"w x 2"h x 5"d, 18 oz. **$49.99**

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## 2004

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ORLANDO AMATEUR RADIO CLUB

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# ADI

## SINGLE BAND HANDHELDS

The AT-201HP and 401HP are advanced single band HT's with 40 memory channels, programmable band scan, auto repeater offset, frequency or channel display and more. The units have rugged metal cases with backlit keypads and displays. 12V batteries come standard, providing 5W of RF power. • MARS/CAP capable • 40 memories • CTCSS enc/decode • Programmable band and memory scan • DTMF paging • Dual frequency watch • Auto repeater offset • User selectable frequency or channel display modes.

**AT-201HP** **2M Handheld** Transmit: 144–148MHz • Receive range: 130–179MHz • 4.25"h x 2"w x 1.3"d excluding battery pack ..... **$99.99**

**AT-401HP** **70cm Handheld** Transmit: 430–450 MHz • Receive: 420–470MHz • 4.25"h x 2"w x 1.3"d excluding battery pack..... **$159.99**

*Available Accessories*

**CBP262** 6 AA NiCad battery holder, **CHA072** Wall charger for RBP072, **CHA120** Wall charger for RBP120/RBP22, **PCA145** Cigarette lighter cable, **RBP120** 12V 700mA NiMH, **SD911** Rapid charger, **SLC200** 2.5W carrying case, **SLC200L** 5W carrying case

**PR-52** 6 Meter **Handheld Transceiver** Expands your horizons beyond "average" VHF operation, and onto the enjoyable 6m "DX" band. The 5-watt, palm-sized unit brings you the portability and power you need to fully explore a great VHF band. Other features include 5W output with included NiCad battery pack • MARS and CAP capable • Built-in CTCSS encode and decode • 40 memory channels store any tone or offset • Direct frequency entry using 16 button keypad • Frequency or channel display modes • PC program capability or cable cloneable • Transmit: 50–54 MHz • Receive: 40–54MHz • 4.25"h x 2"w x 0.25"d excluding battery pack.. Closeout **$159.99**

*Available Accessories*

**CBP263** AA battery case, **PTC001** Mobile power pack, **RBP22H** 12V 1000mA NiMH, **SD911** Rapid charger, **SLC22L** Leather case

# ALINCO

**AMATEUR RADIO'S VALUE LEADER™**

## SINGLE BAND HANDHELDS

**DJ-196T** 2M HT 5W output • 135-174MHz rx • 40 multi-function memory channels • MAR/CAP capability • Alpha-numeric display • CTCSS tone encode/ decode and DCS • S-meter • Auto dialer • Cable cloning • PC programming capability • Theft alarm • Experimental insect repel • Back lit keypad • 4.9"h x 2.2"w x 1.6"d, 13.2 oz..... **$139.99**

**DJ-296T** 222 HT Same as DJ-196T except has a range of 222-225MHz **$179.99**

**DJ-496T** 440 HT Same as DJ-196T (above) except has a range of 430-450MHz..... **$149.99**

*Available Accessories*

**EBC6** Mobile HT bracket, **EBP48N** 9.6V 700mA 5W NiCad battery, **EBP50N** 9.6V 700mA 5W NiMH battery, **EBP51N** 9.6V 1500Ma 5W NiMH battery, **EBP56N** 7.4V 1000mAh lith-ion battery, **EDC111** Charger for EBP56N, **EDC16B** Cigarette lighter cable and filter, **EDC36** Angle plug power cable with filter, **EDC37** 13.8V power cable, **EDC43** Cigarette lighter cable, **EDC88** Rapid charger, **EDC97** NiMH quick charger, **EDH30** Dry cell battery case, **EME12** Headset/earphone/ microphone with VOX, **EME13** Headset/ear bud/ microphone with VOX, **EME15** Earphone/microphone with VOX, **EME17** Boom earphone microphone, **EME20** Tie-pin mic/earphone, **EME6** Earphone, **EMS47** Speaker microphone with volume control, **ERW4** PC cable, **ESC36** Soft case for EBP48N

# The Xtreme Communications Xperts!

## DM-330MVT Communications Grade Switching Power Supply

***Alinco's Xperts have reinvented the power supply!*** Xtremely quiet with a patented noise shift circuit, but we'll be surprised if you ever need to use it. It's small, lightweight and powerful! 30A continuous, 32 A peak output, but weighs less than 5 lbs. Variable output from 5 ~ 15 VDC, memory output setting, lighted V/A meter, front panel cigar (10A) and quick-connect (5A) terminals, rear panel high-current connections. Ripple less than 15 mV p-p. *Xtra versatile, use for travel, station or test bench.*

## EDX-2 Automatic Wire Antenna Tuner

***Xtreme users want to get on the air fast!*** Ground it, connect a wire and plug it into your rig. Tunes random length wires from 9 ~ 80 feet. Covers 160 ~ 10 meters. (minimum 40 feet of wire needed for use on 160m) Compatible with DX-70 and DX-77 transceivers. Made for indoor/outdoor mounting, use at home, mobile or in the field. Outputs directly to a wire or whip antenna only (no coax output).

## DJ-X2000T Multimode Wide Range "Intelligent" Receiver

***Monitoring Xcitement*** is found in the "Intelligent Receiver" from 100 KHz ~ 2150 MHz* with 2000 memory channels, alpha-numeric labeling, receives AM, WFM, NFM, LSB, USB, CW and FM stereo.** On-line "help" feature, 20 scan programs, computer programmable (download free software from Alinco website), Channel Scope™ display, Transweeper™, RF frequency counter, digital sound recorder, CTCSS decode, 2 level attenuator, field strength meter, *instant "flash tune" and many Xtras!*

## DJ-X3T Multimode Wide Range Communications Receiver

***Xceptional and unique!*** Small but powerful. Receives 100 KHz ~ 1.3 GHz*, AM, NFM, WFM. 700 memory channels, NiMH battery, four scan modes, stereo FM reception.** *Download free control software from www.alinco.com*

## DJ-X10T Multimode Wide Range Communications Receiver

***Xtraordinary reception*** from 100 KHz ~ 2 GHz* with 1200 memories, alphanumeric display, Channel Scope™ Display, receives WFM, NFM, USB, LSB, AM and CW. Internal HELP feature, seven scan modes, clock with on/off function, "new user" and "eXpert" operating modes, BNC antenna connector, cloning function, *and an Xtensive array of custom settings.*

www.ALINCO.com

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*Cellular blocked in USA. Unblocked versions available to qualified users, documentation required. **Optional stereo headphones required. Specifications subject to change without notice.

# ALINCO

**AMATEUR RADIO'S VALUE LEADER™**

**DJ-S11T** Sub-Miniature VHF HT TX/RX: 144–148 MHz • 340 mW output • 20 multi-function memories plus 1 call • Encoder installed (50 tones) • Illuminated display • Use 3 AA or NiCad battery • Pivoting antenna • 4"h x 2"w x 1"d, 6.5 oz..... **$79.99**

*Available Accessories*
**EBC6** Mobile HT bracket, **EDC78** Wall charger (not alkaline), **EDH18** 12V/5.5V DC cigarrette lighter plug, **EME12** Headset/earphone/microphone with VOX, **EME13** Headset/earbud/microphone with VOX, **EME15** Earphone/microphone with VOX, **EME17** Boom earphone microphone, **EME20** Tie-pin mic/earphone, **EME6** Earphone, **EMS47** Speaker microphone with volume control, **ESC27** Soft case

**FREE ITEMS included with some radios. See Price Guide for details.**

**DJ-S40T** Pocket-sized UHF HT Covers 420-450MHz, with receiving capabilities beyond the range. 500mW power output but can be increased to 1W by using the optional NiMH battery or external DC supply. • 100 memories • Call channel and several scan modes • Newly designed case that conceals the speaker but provides loud, clear audio • 38 CTCSS encode/decode settings (decode standard) • 4 tone bursts, making it usable for repeaters in many parts of the world • Large, easy-to-read, illuminated display • Experimental "mosquito repelling feature" • Theft alarm function • Cloning capability • Use with cross-band transceivers (base or mobile dualband) as a "remote mic" ..... **$89.99**

*Available Accessories*
**EBC6** Mobile HT bracket, **EBP52N** 3.6V 500mAh NiMH battery, **EBP53N** 6.0V 500mAh NiMH battery, **EBP54N** 3.6V 1500mAh NiMH battery, **EDC105** Drop-in NiMH charger without power supply, **EDC37** 13.8V power cable, **EDC43** Cigarette lighter cable, **EDC93** Wall power supply for EDC105, **EDH31** Dry cell battery case, **EME12** Headset/eaphone/microphone with VOX, **EME13** Headset/ear bud/microphone with VOX, **EME15** Earphone/microphone with VOX, **EME17** Boom earphone microphone, **EME20** Tie-pin mic/earphone, **EME6** Earphone, **EMS47** Speaker microphone with volume control, **EMS8Z** Remote speaker mic, **ERW4** PC cable, **ESC37** Soft case

Secure
www.aesham.com

## DUAL BAND HANDHELDS

**DJ-596T** 2M/440MHz Dual Band HT The first Amateur HT to support optional digital voice communications. • 5W output on both bands with standard NiMH battery • Wide or narrow FM • Digital voice with optional EJ-43U board • Extended receive capabilities • CTCSS and DCS encode and decode • Three scan modes • Work and save in memory any number of "odd split" transmit/receive offsets • Illuminated keys and display • Large display shows alphanumeric designations for each of the 100 memories • Theft alarm and experimental "mosquito repelling sound" • 9 autodial memories • External terminal control can output 5 VDC @ 5 mA from the mic jack, which can be used by experimenters to control external devices • Operates on 6-16VDC, battery charges while on external source • 4.9"h x 2.2"w x 1.6"d, 13.2 oz..... C/O **$209.99**

**DJ-596T MK II** Same as above with addition of ± 2.5ppm crystal and new digital board..... **$209.99**

*Available Accessories*
**EBC6** Mobile HT bracket, **EBP48N** 9.6V 700mAh 5W NiCad battery, **EBP50N** 9.6V 700mAh 5W NiMH battery, **EBP51N** 9.6V 1500mAh 5W NiMH battery, **EBP56N** 7.4V 1000mAh lith-ion battery, **EDC111** Charger for EBP56N, **EDC16B** Cigarette lighter cable and filter, **EDC36** Angle plug power cable with filter, **EDC37** 13.8V power cable, **EDC43** Cigarette lighter cable, **EDC88** Rapid charger, **EDC97** NiMH quick charger, **EDH30** Dry cell battery case, **EJ43U** Digital board for 596T, **EJ47U** Digital board for 596TMKII, **EME12** Headset/earphone/mic with VOX, **EME13** Headset/ear bud/microphone with VOX, **EME15** Earphone/microphone with VOX, **EME17** Boom earphone microphone, **EME20** Tie-pin mic/earphone, **EME6** Earphone, **EMS47** Speaker mic with volume control, **ERW4** PC cable, **ESC36** Soft case for EBP48N, **SW596** Windows programming software

**DJ-V5TH** VHF/UHF Dual Band FM HT Full 2 meter and UHF Amateur band coverage • Standard high-power 700 mAh NiCad battery pack – up to 5W output • 3 output settings • Expandable receive range 76–999MHz (cellular blocked), includes wide FM capability • Split-band operation capability • Eight different tuning steps • Alphanumeric display – up to 6 characters • 200 memory channels plus two call channels • CTCSS encode/decode • DTMF squelch • 4 different European tone bursts • 4 scan modes and 5 programmable scan banks • MARS/CAP capability • Auto-dial memories • Auto high temperature protection feature • SMA connector • Wire cloning capable • Accepts up to 13.8V DC input • 4.5"h x 2.25"w x 1.75"d, 13 oz.... **$209.99**

*Available Accessories*
**EBP46N** 9.6V 600mAh 5W NiCad battery, **EDC16B** Cigarette light cable with filter, **EDC36** Angle plug power cable with filter **EDC37** 13.8V power cable **EDC43** Cigarette lighter cable, **EDC91** Quick charger, **EDH29** Dry cell battery case, **EME12** Headset/earphone/microphone with VOX, **EME13** Headset/ear bud/microphone with VOX, **EME15** Earphone/ microphone with VOX, **EME17** Boom earphone microphone, **EME20** Tie-pin mic/earphone, **EME6** Earphone, **EMS47** Speaker mic with volume control, **EMS8Z** Remote speaker mic, **ESC35** Soft case for EBP45N/46N

**DJ-C5T** Credit Card Sized 2M/440MHz Dual Band HT 300mw output • TX: 144–147.995 & 420–449.995MHz • RX: 118–173.995 and 420–449.995MHz • 50 memories • CTCSS tone enc/dec standard • Volume/squelch control • Keylock • Auto power off with Morse Code alert • Mic/earphone jack • TX lamp • Free offset • Reverse monitor • Scan function with skip setting • Multi Euro tone bursts • Battery save & channel display modes • AM aircraft receive with expanded VHF wideband reception • Rechargeable 3.8V lithium-ion battery • 2-hour "snap-in" charger • Soft case • 3.75"h x 2.25"w x 0.43"d, 3 oz..... **$149.99**

*Available Accessories*
**EDC16B** Cigarette light cable with filter, **EDC36** Angle plug power cable with filter, **EDS7** Microphone adapter, **EME17** Boom earphone microphone, **EME18** Earphone, **EME20** Tie-pin mic/earphone, **EMS49** Mini lapel speaker microphone, **EMS50** Speaker microphone, **ESC34** Soft case with belt clip

# ICOM

## 2M SINGLE BAND HANDHELDS

**IC-2GXAT/HP** 2M Transceiver 7W output @ 13.5 V DC • 144-148MHz rx (136-174MHz expandable) • 40 mem. channels • 700mAh battery • Auto repeater operation • Tone scan • DTMF redial and five auto dial memories • 350 mW audio • Selectable DTMF speed • Built-in PL enc/dec • 35mA current drain • 2.2"w x 4.9"h x 1.4"d, 12.9 oz..... Closeout **$249.99**

*Available Accessories*
**AD25** Battery charger adapter, **AD28** Battery pack adapter/rapid charger, **BC105A** Wall charger, **BC119N11** NiCad/NiMH desk charger, **BP130A** Battery case, **BP157A** 900mAh 7.2V battery, **BP174** 600mAh 12V battery, **HM128** Earphone + mic, **HM46** Slim-line speaker mic, **HM46L** Slim-line speaker mic with right angle plug, **HM54** Heavy-duty speaker mic, **HS51** Headset/VOX, **HS94** Earpiece headset, **MB30** Mobile or wall bracket, **OPC288** Mini DC power cord, **SP13** Earphone, **VS1** VOX-PTT unit for HS94

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# Xtreme Xcitement!

### DJ-V5TH, 2m/440 HT*

Great 2m/440 TX & RX, xtended RX range from 76 ~ 999 MHz, wide band FM, alpha display, 200 memories, CTCSS & DCS encode+decode, 5 watts output, compact size, 4 scan modes, split-band ops, auto-dialer, 13.8 VDC direct input. ***Xcellent performer!***

### DJ-196T (2m), DJ-296T (222 MHz), DJ-496T (440 MHz) HT

Backlit keys, alpha display, 40 memories, CTCSS and DCS encode+decode, autodial, 13.8 VDC input, and more! High-power battery is standard. ***Xtra handy!***

### DJ-S40T 440 MHz HT

Pocket HT features 500 mw output on AA cells, up to 1 watt using optional battery pack or external DC power. 100 memories, CTCSS encode+decode, SMA antenna, great audio, theft alarm and more! ***Xtremely small but packs a punch.***

### DJ-S11T (2m),

***"Pager size" transceiver,*** 340 mw output, great TX and RX audio. Self-storing pivot antenna, uses AA batteries, 21 memories, CTCSS encode, fits in pocket or purse. ***Amazing low price and check out the array of Xcessories!***

### DJ-C5T 2m+440 "Credit Card" FM HT

***Awesome "credit card" size,*** internal speaker, 50 memories, CTCSS encode+decode, AM airband RX, 300 mw output, soft case, 600 mAh lithium ion battery, includes rapid charger! ***This tiny performer Xcells.***

### DR-605TQ 2m+440 FM Mobile/Base

***Xtra value!*** 50 watts VHF/35 watts UHF, 51 memories/band, crossband repeat, 430 ~ 449.995 range allows for satellite comms, dual watch. ***Check the LOW price!***

### DR-135T/TP MKII (2m), DR-435T MKII (440 MHz), DR-235T (222 MHz) Mobile/Base

DR-135 includes AM Airband RX. All models have 100 memories, ignition key on/off, theft alarm, large 7 character alpha display, optional internal TNC can be used for packet or APRS™, 9600 packet mode, front data/GPS input, rear DSUB9 connector, H/M/L power out, autodialer, CTCSS and DCS encode+decode, backlit mic, ***Xtra rugged!*** Accepts optional digital voice communications board.

### DJ-596T MKII 2m+440 HT

100 memories, alpha channel labels, NiMH battery, CTCSS and DCS encode+decode, WFM+NFM, theft alarm, 6 ~ 16 VDC input, illuminated keys and display, autodialer, full coverage of both bands, Xpanded receive; optional digital voice communications board and more! ***Xtend your abilities!***

### DR-620T 2m+440 Mobile/Base

***Xceptional features!*** Remotable head, speaker faces up or down, changeable color alpha display, 200 memories, H/M/L output, V/U, V/V, U/U, WFM and AM Air Xtended RX, TCXO, theft alarm, ***options include TNC or digital voice module, remote mount kit.***

### DR-MO6TH 6m/20 watts FM Mobile/Base

***"Magic band" Xcitement*** with local and DX FM contacts, simplex or through repeaters. ***Includes CTCSS encode and 100 memories.***

### DX-70TH (100w) HF+6m Mobile/Base/Portable

HF + 6m Amateur band TX in all modes, Xtra coverage RX from 150 KHz ~ 30 MHz and 50 ~ 54 MHz. Remotable face, 2 VFOs, 100 memories, speech compressor, SSB, CW and AM narrow filters, fullbreak-in, multi-function control and MUCH more! ***Xcessories include EDX-2 wire antenna tuner & DM-330MVT power supply.***

### DX-77T HF Base/Portable

***Xcellence at a great price!*** Amateur band TX in all modes; 500 KHz ~ 30 MHz general coverage RX. Clean, clear audio, low noise floor from DDS, 100 memories, easy to operate. ***Speech compressor, CTCSS encode for 10m FM operation, CW filter.***

www.ALINCO.com

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*Cellular blocked in USA. Unblocked versions available to qualified users; documentation required.

# ICOM

**IC-T22A** 2M Handheld 5W output @ 13.5 V • 4.0 - 16 VDC input • 136-174MHz rx • Auto low power/power saver (15mA drain) • Remote control microphone (optional HM-75A) • 80 memory channels (40 with alpha display) • VHF/UHF air band receive • Auto repeater function • Backlit display • Die cast aluminum frame and heat sink • Optional tone scan • 2.3"w x 4.3"h x 1.1"d, 10.9 oz..... **$199.99**

*Available Accessories*

**AD56** Battery pack adapter/rapid charger, **BC119N11** NiCad/NiMH desk charger, **BP170** Battery case, **BP172** 950 mAh 4.8V battery, **BP173** 600mAh 9.6V battery, **BP180** 600mAh 7.2V battery, **CP12** Cigarette cable with filter, **CP12L** Right angle cigarette cable with filter, **HM128** Earphone + mic, **HM131** Speaker/mic/earphone jack/clip, **HM46** Slim-line speaker mic, **HM46L** Slim-line speaker mic with right angle plug, **HM54** Heavy-duty speaker mic, **HM75A** Remote control mic, **HS10** Boom mic/headset, **HS10SA** VOX unit, **HS10SB** PTT switchbox, **HS85** Headset with VOX, **HS94** Earpiece headset, **LC125** Case for T22A with BP170/71/72, **LC126** Case for T22A with BP173, **MB30** Mobile or wall bracket, **NCP1** Nylon chest pack, **OPC254** Mini DC power cable, **OPC254L** Right angle mini DC power cable, **SP13** Earphone, **VS1** VOX-PTT unit for HS94

**IC-T2H SPORT** 2M Handheld 6W @ 9.6 VDC • 136-174MHz receive • 43 memories • CTCSS enc/dec standard, with pocket beep and tone scan • 8 programmable keys • 5 DTMF memories, with 32-digit codes and redial • 10 weather channels • Direct keypad frequency entry • Back-lit LCD • Auto repeater and "intuitive" help functions (display directs user what to do next) • 2-step power save • Monitor and lock functions • One-piece, die-cast aluminum chassis and polycarbonate casing • Meets MIL SPEC C/DE for shock and vibration • Includes battery holder • Alkalines required • 2.3"w x 5.5"h x 1.3"d, 14.8 oz... **$99.99**

*Available Accessories*

**AD81** Adapter for BC11911, **BC110A** Wall charger, **BC119N01** Desk charger, **BC122A** AC adapter for BC133, **BC133** Drop-in trickle charger, **BP194** "AA" alkaline battery case, **BP195** 700mAh 9.6V battery, **BP196** 1050mAh 9.6V battery, **CP12L** Right angle cigarette cable with filter, **CP17L** Right angle cigarette cable for charger, **CST2** DOS programming software, **CSWHH4** Windows software with cable, **HM128** Earphone + mic, **HM131** Speaker/mic/earphone jack/clip, **HM46** Slim-line speaker mic, **HM54** Heavy-duty speaker mic, **HM75A** Remote control mic, **HS51** Headset/VOX, **HS94** Earpiece headset/use with VS1L, **LCF3SWIVEL** Leather case with swivel, **LC145** Carrying case, **MB68** Extra standard belt clip, **MB74** Spring loaded belt clip, **MB87** Swivel belt clip, **OPC254L** Right angle mini DC cable, **OPC474** Radio-to-radio clone cable, **OPC478** PC cable, **SP13** Earphone, **VS1** VOX-PTT unit for HS94

*With the IC-T2H SPORT and a PC you can download up to 40, stored, pre-programmed frequencies, such as in a repeater directory, from your PC directly into the SPORT. PC-to-SPORT and SPORT-to-SPORT cloning requires optional software and cables.*

**IC-V8** 2M FM HT ICOM's first amateur 2m handheld radio with CTCSS/DTCS enc/decode with tone scan. You will not find a 2M HT that is easier to use. • Retro design • 144-148MHz • Full 5.5W output (standard battery) • Acoustical design for the best audio • 100 alphanumeric memories with easy recall • Scans 40 channels/second • Zoom through personalized scan ranges • Customize operatation using up/down and rotary controls • Designed for any size hand with full-sized keypad for larger fingers • Drop-in trickle charger included, which operates from 12VDC either in home or car; charge battery in radio or alone • Use a PC to set-up operating parameters • Durable green polycarbonate front panel and aluminum diecast chasis built to military specs • 2.125"w x 5.188"h x 1.375"d, 12.3 oz... **$129.99**

*Available Accessories*

**AD101** Battery adapter for BP211 and BC119N01, **AD9411** Adapter cup for BC119N01, **BC119N01** Desk charger, **BC14401** Desk charger with adapter, **BP208** Battery case, **BP209** 7.2V 1100mAh 5.5W battery, **BP210** 7.2V 1650mAh 5.5W battery, **BP211** 7.4V 1600mAh Lith ion battery, **BP222** 7.2V 600mAh 5.5W battery, **CP17L** Right angle cigarette cable for charger, **CSV8** Cloning software, **HM131L** Right angle plug for speaker/microphone/earjack/clip, **HM46L** Slim-line speaker mic with right angle plug, **HM54** Heavy-duty speaker mic, **HM75A** Remote control mic, **HS51** Headset/VOX, **HS94** Earpiece headset, **LCF3GSWIVEL** Leather case with swivel, **MB68** Extra standard belt clip, **MB74** Spring loaded belt clip, **MB87** Swivel belt clip, **OPC474** Radio-to-radio clone cable, **OPC478** PC cable, **OPC478U** PC USB cable, **OPC515L** Right angle DC cable for charger, **SP13** Earphone, **UT108** DTMF decode unit, **VS1L** Right angle VOX-PTT unit for HS94

## DUAL BAND HANDHELDS

**IC-Q7ABC** Ultra Compact 2M/440MHz Dual Band HT with Full Feature Scanner Extra easy to use and wide FM performance • Output power: 350mW (VHF), 300mW (UHF) • Transmit: 144–148MHz and 440–450MHz triple conversion • Receive: 30–1300MHz (cell blocked on U.S. model) • 200 memories • Superior audio in its class from large 1.4" speaker and 100mW audio output • CTCSS tone encoder/decoder with pocket beep • Easy to use – only 7 buttons (including power) and a large, easy to grasp tuning dial • Auto repeater function • Channel operation • Tone scan • 10 tuning steps • Easy reverse • Dual watch • RIT function • Auto power OFF power saver • Manually or automatically controlled LCD back lighting for easy low light operation • Meets MILSPEC C/D/E for shock and vibration • Includes 2 AA-size NiCads, or "AA" alkalines • 2.3"w x 3.75"h x 1.1"d, 6 oz..... **$119.99**

*Available Accessories*

**AD92SMA** SMA-BNC adapter, **BC127A** Charger for 2 or 4 "AA" NiCads, **HM128** Earphone + mic, **HM46** Slim-line speaker mic, **HS85** Headset with VOX, **LC146** Carrying case, **LC146A** Carrying case, **OPC782** Plug adapter cable, **SP13** Earphone

**FREE ITEMS included with some radios.**
**See Price Guide for details.**

**IC-T7H** 2M/440MHz Dual Band HT 5W with standard battery (9.6V/650mAh) • Up to 6W @ 13.5V DC (optional DC power cable required) • TX 144-148 MHz, 440–450MHz; RX 118–174 MHz, 400–470MHz • 250mW+ audio output • One-touch band switching • Priority watch • 70 memories (9 DTMF, for auto dialing) • CTCSS tone encode/decode • 50 independently programmable tone frequencies • Auto power save and repeater function • Auto OFF • Thumb-touch lock settings • Internal guide • Backlit LCD • Wall charger • Programmable • 2.3"w x 4.8"h x 1.1"d, 14.3 oz..... **$189.99**

*Available Accessories*

**AD56** Battery pack adapter/rapid charger, **BC119N11** NiCad/NiMH desk charger, **BP170** Battery case, **BP172** 950mAh 4.8V battery, **BP173** 600mAh 9.6V battery, **BP180** 600mAh 7.2V battery, **CP12** Cigarette cable with filter, **CP12L** Right angle cigarette cable with filter, **CST7** DOS programming software, **CSWHH4** Windows software with cable, **FA1443B** 2M/440 duck, **HM128** Earphone + mic, **HM131** Speaker/mic/earphone jack/clip, **HM46** Slim-line speaker mic, **HM54** Heavy-duty speaker mic, **HM75A** Remote control mic, **HS10** Boom mic/headset, **HS10SA** VOX unit, **HS10SB** PTT switchbox, **HS85** Headset with VOX, **HS94** Earpiece headset, **LC136** Case for T7H with BP170/171/172, **LC137** Case for T7H with BP173/180, **MB30** Mobile or wall bracket, **NCP1** Nylon chest pack, **OPC254** Mini DC power cable, **OPC254L** Right angle mini DC power cable, **OPC478** PC cable, **SP13** Earphone, **VS1** VOX-PTT unit for HS94

**IC-W32A** 2M/440MHz Dual Band HT 5W output @ 13.5V DC • 144-148, 440-450 transmit; 118-174, 400-470 receive • 200 memories • 8-character alphanumeric memory identification • Keypad entry • Backlit display and keypad • HT-to-HT cloning capability or PC programming capability (optional accessories required) • Independent tuning and volume band controls • VHF/UHF ex-change function allows assignment of VHF/UHF band controls to either knob • Meets MILSPEC C/D/E for shock and vibration • 2.25"w x 5.5"h x 1.4"d, 16 oz..... **$259.99**

*Available Accessories*

**AD51** Battery pack adapter/rapid charger, **BC119N11** NiCad/NiMH desk charger, **BP170** Battery case, **BP172** 950mAh 4.8V battery, **BP173** 600mAh 9.6V battery, **BP180** 600mAh 7.2V battery, **CP12** Cigarette cable with filter, **CP12L** Right angle cigarette cable with filter, **CSWHH4** Windows software with cable, **CSW32** DOS programming software, **FA1443B** 2M/440 duck, **HM128** Earphone + mic, **HM131** Speaker/mic/earphone jack/clip, **HM46** Slim-line speaker mic, **HM54** Heavy-duty speaker mic, **HM75A** Remote control mic, **HS10** Boom mic/headset, **HS10SA** VOX unit, **HS10SB** PTT switchbox, **HS85** Headset with VOX, **HS94** Earpiece headset, **LC128** Carrying case, **MB30** Mobile or wall brkt, **NCP1** Nylon chest pack, **OPC254** Mini DC power cable, **OPC254L** Right angle mini DC power cable, **OPC474** Radio-to-radio clone cable, **OPC478** PC cable, **SP13** Earphone, **VS1** VOX-PTT unit for HS94

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# ICOM

## MULTI BAND HANDHELDS

**IC-T90A** 6M/2M/70cm FM **Handheld** Palm-sized, simple to operate, and designed with a die-cast aluminum chassis. New MOSFET technology, along with a 7.4V Lithium-ion battery, produces a full 5W. Wideband receive covers 495 kHz to 999.990MHz (cellular blocked), AM, FM or WFM modes. Unique WX Alert feature constantly checks local active weather station for alert tone. If alert occurs, the HT automatically switches to the WX channel and beeps. Scanning management with 555 alphanumeric memories (500 regular, 50 scan edges, and 5 call channels). Dynamic Memory Scan allows choosing any of 450 memories to scan, and, with its soft partitioning, setting up a maximum of 18 banks or 100 channels/ bank. Pre-programmed with TV station frequencies! Over-sized buttons for easy operation. Optional PC software for memory, alphanumeric, scan list and parameter customizing. • 2.28"w x 3.44"h x 1.16"d, 8.47 oz..... **$269.99**

*Available Accessories*

**AD92SMA** SMA – BNC adapter, **BC139** Desk rapid charger, **BP216** Battery case, **BP217** 7.4V 1300mAh lith-ion, **CP19R** Cigarette cable with filter, **CST90A** Windows cloning software, **HM128** Earphone + mic, **HM131** Speaker/mic/earphone jack/clip, **HM46** Slim-line speaker mic, **HM75A** Remote control mic, **HS85** Headset with VOX, **HS94** Earpiece headset, **LC152A** Carry case, **MB83** Swivel belt clip, **OPC474** Radio-to-radio clone cable, **OPC478** PC cable, **OPC478U** PC USB cable, **SP13** Earphone, **VS1** VOX-PTT unit for HS94

# KENWOOD

## SINGLE BAND HANDHELD

**TH-22ATH** 2M FM **Handheld** This is a super-compact and lightweight transceiver with impressive performance. EZ to use menu system. Palm-sized, sharply styled, easily slips into pocket. • 5W output from MOS FET power module and standard PB-34 NiCad battery • 136-174 receive • RF output control (Hi/Low/EL) • 144–148 MHz coverage • 40 memory channels stored in E²PROM (plus 1 call channel) • Auto repeater offset • Multi scan functions (VFO, call and memory) • Dual Scan stop modes (CO and TO) • CTCSS encode • DTSS and page • Luminescent keypad and LCD with backlighting • Built-in DTMF keyboard • 5 DTMF memories • Tone alert • Selectable squelch configuration • Busy channel lock out • Battery voltage indicator • Drop-in desktop charger • 2.1"w x 6.1"h x 1.12"d, 11 oz..... Closeout **$199.99**

*Available Accessories*

**BT9** Four "AA" battery holder, **EMC3** Label clip mic/earphone PC, **HMC3** VOX/boom mic headset, **KSC14** 2 pack rapid charger, **KSC8A** Drop-in charger, **PB33** 1200mAh 6V battery, **PB34** 600mAh 9.6V 5W battery, **PG2W** DC cable, **PG3J** Cigarette cord with filter, **SMC32** Mini right angle speaker mic, **SMC33** Speaker mic with remote control, **SMC34** Speaker mic with volume function keys, **TSU8** CTCSS decoder, **WR2** Water resistant bag

**TH-K2AT** 2M HT • 5W RF output • Large LCD panel and backlit keys • Internal VOX • Weather alert/RX • Automatic simplex checker • Auto repeater offset • Multiple scanning functions • Priority scan • Built-in CTCSS, DCS and 1750Hz tone burst • Meets MIL-STD-810 standards for resistance to rain, vibration, shock and humidity • Charges up to three times faster than previous models..... **$159.99**

*Available Accessories*

**BT14** Six "AA" battery holder, **EMC3** Lapel clip mic/earphone PC, **HMC3** VOX/boom mic headset, **KHS21** Boom mic headset, **KSC24** Rapid charger, **PB43N** 1100mAh 7.2V NiMH battery, **PG2W** DC cable, **PG3J** Cigarette cord with filter, **PG4Y** Programming cable, **SC45** Soft case, **SMC32** Mini right angle speaker mic, **SMC33** Speaker mic with remote control, **SMC34** Speaker mic with volume function keys, **WR2** Water resistant bag

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**FREE ITEMS included with some radios. See Price Guide for details.**

## DUAL BAND HANDHELDS

**TH-D7A(G)** 2M/440MHz **Dual Band Data Communicator** Equipped with a built-in TNC for simple packet operation or with a GPS as a full function APRS™. Reports position, speed and heading as well as calculation of distance to destination. Also use for APRS™ messaging – send up to 45 characters without a PC. Advanced functions possible with the VC-H1 • 5.5W @ 13.6V DC • 2M: 144–148MHz tx, 118–174MHz rx • 440MHz: 430–450MHz tx, 400–480MHz rx • 1200/9600 baud TNC • Station list stores data in up to 40 memory channels • Grid square locator display • Dual receive on same band for voice and data (VHF only) • 200 memories • PC programmable for frequency and name (PG-4W required) • 16 backlit keys • CTCSS encode/decode • MIL-SPEC 810C/D/E water resistant • 10 channel DTMF phone and auto patch memories • TM-V7A and TM-742D DTMF remote • Altitude • Time • 3-position memory • 3-memory text • Position ambiguity • Audible emergency signal • Auto message response • Data band settings • 1750MHz packet burst • 4.75"h x 2.25"w x 1.5"d, 12 oz .... **$359.99**

*Available Accessories*

**BC19** Rapid charger, **BT11** Four "AA" battery holder, **EMC3** Lapel clip mic/earphone PC, **HMC3** VOX/boom mic headset, **J29063113** Belt clip, **PB39** 600mAh 9.6V 5W battery, **PG2W** DC cable, **PG3J** Cigarette cord with filter, **PG4P** PC control cable, **PG4V** VCH1 connector cable, **PG4W** PC software and cable, **SC47B** Black soft case, **SC47OR** Orange soft case, **SMC32** Mini right angle speaker mic, **SMC33** Speaker mic with remote control, **SMC34** Speaker mic with volume function keys, **WR2** Water resistant bag

**TH-G71A** Dual Band FM HT Its ergonomic design, illuminated and back lit display all combine to make operation a breeze. The EZ to use menu system gives full control over all operating settings. • 6W (VHF), 5.5W (UHF) @ 13.8V DC • 2M: 144–148 tx/rx and 118–174MHz extended receive including Aircraft, 440MHz: 430–450MHz tx and 400–470 MHz rx • 200 multi-function memory channels • Memory name function • Multiple scan modes • CTCSS tone scan • DTMF memory (10 channels) • DTMF remote control • Function key lock • Auto battery saver circuit • Auto power-off • TIme-out timer • PC ready • High performance antenna • TM-V7A remote control • MIL-STD 810E approved • 2.3"w x 4.4"h x 1.3"d, 11.6 oz..... **$229.99**

*Available Accessories*

**BC19** Rapid charger, **BT11** Four "AA" battery holder, **EMC3** Lapel clip mic/earphone PC, **HMC3** VOX/boom mic headset, **J29063113** Belt clip, **PB39** 600mAh 9.6V 5W battery, **PG2W** DC cable, **PG3J** Cigarette cord with filter, **PG4P** PC control cable, **SC45** Soft case for G71A with PB38/39, **SMC32** Mini right angle speaker mic, **SMC33** Speaker mic with remote control, **SMC34** Speaker mic with volume function keys, **WR2** Water resistant bag

## TRIBAND HANDHELD

**TH-F6A** FM Triband HT Covers 144/220 and 440MHz plus 0.1-1300 cell blocked (including Aircraft receive). • Dual channel receive capability • FM/FM-W/FM-N/AM plus SSB/CW receive • Ferrite bar antenna for receiving AM • Weather channel RX mode • 435 memories (8 groups of 50 channels) • 3 call channels plus 20 for programmable scan • Multiple scan functions • 7.4V 1550 mAh lithium-ion battery for 5W and extended operation • 16-key backlit pad plus multi-scroll key • Built-in charging circuitry – battery recharges while unit opertaes form a DC supply • Built-in CTCSS enc/decode/DCS • Large 8-character alphanumeric display • Wireless remote control • Battery indicator • Internal VOX • MCP programming software via web (using PG-4P) • Meets MIL-STD 810 C/D/E for resistance to vibration, shock and light rain • 3.438"h x 2.313"w x 1.188"d, 8.8 oz (with battery)..... **$329.99**

*Available Accessories*

**BT13** AA battery case, **EMC3** Lapel clip mic/earphone PC, **HMC3** VOX/boom mic headset, **KHS21** Boom mic headset, **PB42L** 1550mAh 7.4V lith-ion battery, **PG2W** DC cable, **PG3J** Cigarette cord with filter, **PG4P** PC control cable, **SC51** Softcase with swivel belt clip, **SMC32** Mini right angle speaker mic, **SMC33** Spker mic with remote control, **SMC34** Spker mic with volume function keys, **WR2** Water resistant bag

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# YAESU

## SINGLE BAND HTS

**VX-150** 2M Ultra-Rugged FM HT Designed to perform under the most difficult conditions. Packed with leading edge features. Die-cast aluminum case • High output speaker • Illuminated keypad and OmniGlow™ • 5W with standard battery • Three power output levels • 144–148 MHz tx, 140–174MHz rx • 209 memories • SmartSearch™ auto memory loading • Keypad with 16 multi-function keys • Two user-definable function keys • Priority monitoring • Dual watch • Alphanumeric recall • Memory bank and preferential memory scanning • VFO search • Auto repeater shift • ARTS™ • Wide and narrow deviation selection • 1750Hz tone calling • Pro-grammable menu • Battery saver and auto power off • MIL-STD 810D/E rating • 4.2"h x 2.3w x 1.1"d, 11.5 oz..... **$119.99**

*Available Accessories*

**ADMS1F** Programming software, **CN3** BNC-SMA adapter, **CT27** Cloning cable, **CT44** 2-pin speaker mic adapter, **CT53** Packet cable, **EDC5B** DC adapter/filter, **EDC6** DC adapter; plug/wire only, **FBA25** 6 "AA" cell battery case, **FNBV57** 7.2V 1100mAh battery, **FNB64** 7.2V 700mAh battery, **LCC150/TT** Leather case, **LCC150S/TT** Leather case/swivel, **MH34B4B** Speaker mic, **MH37A4B** Earpiece and mic, **NC72B** Extra wall charger, **VAC400B** One-hour rapid charger, **VC25** VOX headset

## DUAL BAND HANDHELDS

**FT-50RD/41B** Ultra Compact Dual Band VHF/UHF HT High performance, heavy-duty, rugged, state-of-the-art and small enough to put in a pocket. Simple to operate, with all the features you want. • Power output 5/2.8/ 1/0.1W • Transmit: 144–148MHz and 430–450MHz • RX: 76–200, 300–540, 590–999MHz (cell blocked), includes AM aircraft receive, FM narrow and wide • 3 selectable filters • Digital Code Squelch • CTCSS encode/decode • 112 memories plus 2 home channels • High speed scanning • 48-character alphanumeric display • ARTS™ • Dual watch • Digital voice recorder • Windows™ PC programmable • Rear mount battery • MIL-STD 810D/E rating • 3.9"h x 2.25"w x 1.2"d, 11.5 oz..... **$219.99**

*Available Accessories*

**ADMS1E** Software, **CA14** Two charging sleeves, **CA15** Charging stand for NC60B, **CLIP10** Spring loaded belt clip, **CN3** BNC-SMA adapter, **CSCV10** Cordura case, **CSC68** Case for unit with FNB41/FBA15, **CSC69** Case for unit with FNB40, **CT27** Cloning cable/CT27A, **CT53** Packet cable, **EDC5B** DC adapter/filter, **EDC6** DC adapter; plug/wire only, **FBA15** 4 "AA" battery holder, **FBA21** 6 "AA" battery holder, **FEP10** Earphone, **FNBV47** 7.2V 1100mAh battery with belt clip, **FNB41** 9.6V 600mAh 5W battery, **FNB42** 9.6V 1100mAh 5W battery, **LCC10C** Leather case with clip for unit with FNB41/V47, **LCC10S** Leather case with sleeve for unit with FNB41/V47, **MH30C2B** Speaker mic, **MH34B4B** Speaker mic, **MH37A4B** Earpiece and mic, **NC50** One-hour dual slot charger, **NC60B** Wall charger, **PA17** Battery cable extender, **VC25** VOX headset

**VX-1R** Ultra Compact Dual Band HT Provides superb local communications at power levels of 1W or 500mW. Impressive memory and scanning capabilities in addition to wideband receive which includes VHF and UHF TV audio. AM broadcast, FM broadcast, AM aircraft band, and public safety channels. • Receive ranges: 0.5–1.7MHz (BC Band) 76–108MHz (FM) • 108–137 (AIR) 137–170 (VHF HAM) • 170–222MHz (VHF TV) • 222–450MHz • 470–800MHz (UHF TV) • 800–999MHz • Cell blocked • Transmit ranges: 144–148 MHz • 430–450MHz • 500 mW with standard 3.6V lithium-ion battery (1W at 6V DC) • 291 memory channels • SmartSearch™ • CTCSS enc/decode, digital coded squelch • Backlit keypad • ARTS™ • One-touch emergency system • PC programmable • 6-digit alphanumeric memory labels • 3.2"h x 1.9"w x 1"d, 4 oz **C/O $139.99**

*Available Accessories*

**ADMS1E** Windows software, **CN3** BNC-SMA adapter, **CSC71** Soft case, **CT44** 2-pin speaker mic adapter, **CT53** Packet cable, **EDC15** DC adapter, **FBA20** Battery holder, **FEP10** Earphone, **FNB52LI** 3.6V 700mAh lithium-ion battery, **MH34B4B** Speaker mic, **MH37A4B** Earpiece and microphone, **NC66B** Two-hour charger, **VC25** VOX headset

**VX-2R** Ultra-compact 144/430MHz Dualband FM Handheld Transceiver Slightly smaller in total size than the 1R, the 2R is housed in a rugged aluminum die-cast case. Powered by a slim-line 1 amp-hour Li-ion battery pack, yielding 1.5W output power on 2M, and 1W on 70cm. With external DC power applied via the optional adapter, power increases to 3/2W (2M/70cm). The VX-2R includes wide receiver coverage from 500kHz to 999MHz (cellular blocked) on AM and FM modes. Over 1300 memory channels, special memory banks for shortwave broadcast, marine band, and NOAA weather ("Severe Weather Alert" feature included), CTCSS and DCS with "split tone" capability, a WIRES™ internet access key and DTMF auto-dialer. Outstanding audio. • Dual-channel "priority" operation • VOX (optional headset required) • RF squelch • Channel counter searches for frequency of strong nearby station • Automatic Repeater Shift • ARTS™ • Busy channel lock-out • DC voltage meter • Wide/narrow deviation setting • Cloning, for quick transfer of programming data • 1750Hz tone for European repeater access • 1.89"w x 3.19"h x 0.91"d, 4.7 oz • $20 Factory Rebate thru 12/31/03..... **$189.99**

*Available Accessories*

**CN3** BNC-SMA adapter, **CSC90** Soft case, **CT27** Cloning cable, **CT44** 2-pin speaker mic adapter, **EDC21** DC adapter, **FNB82LI** 3.7V 1000mAh lithium-ion battery, **MH34B4B** Speaker mic, **MH37A4B** Earpiece and microphone, **VC25** VOX headset

**FREE ITEMS included with some radios. See Price Guide for details.**

## TRIBAND HANDHELDS

**VX-5R** Tri-Band HT A miniature FM transceiver with extensive frequency coverage of 2M, 6M, 440MHz (including AM and FM broadcast), HF shortwave up to 16MHz and VHF AM aircraft. Super thin profile and durable lightweight design. • 5W (4.5W 430MHz) with standard lithium-ion battery • 50–54, 144–148 and 430–450MHz tx, .5–15.995, 48–728.990 and 800–998.990 MHz wideband rx (cell blocked) • 220 memories plus home channels • 10 auto-scan weather channels • CTCSS enc/decode, DCS • Backlit keypad • ARTS™ • 8-character, alpha-numerics • Time-out timer • Dual watch • Dot matrix LCD • Smart search spectrum analyzer • Temperature display read-out • Barometric pressure sensor option • Automatic power-off • Win-dows PC programmable • 16-digit 9-memory DTMF autodialer • Busy channel lock out • Multi-section antenna • Aluminum diecast case • MIL-STD 810 rating • 3.4"h x 2.3"w x 1.1"d, 8.9 oz..... **$249.99**

**VX-5RS** Same radio as the VX-5R above with a silver case..... **$249.99**

*Available Accessories*

**ADMS1E** Windows software, **CD15A** Charger stand for NC72B, **CN3** BNC-SMA adapter, **CSC73** Soft case, **CT27** Cloning cable, **CT44** 2-pin speaker mic adapter, **CT53** Packet cable, **EDC5B** DC adapter/filter, **EDC6** DC adapter/plug/wire only, **FBA23** 2 "AA" cell battery case, **FNB58LI** 7.2V 1100mAh lithium-ion battery, **MH34B4B** Speaker mic, **MH37A4B** Earpiece and mic, **NC72B** Extra wall charger, **SU1** Altitude/barometric pressure sensor, **VC25** VOX headset

**VX-7R** Ultra-Rugged, Submersible Magnesium FM Triband HT With a full 5W output on 50, 144 and 430MHz FM, the 5R also offers bonus coverage on 222MHz FM band at 300mW. The rugged design allows the unit to be submersible at 3' for 1/2 an hour and it sports rubber bumpers, all for JIS-7 specification protection. • 500kHz to 999MHz continuous receive (cellular blocked) • Four simultaneous dual receive modes • Over 900 memories including 40 memory scan band limit, 10 home channels and 10 weather • Built-in CTCSS/DCS enc/decode • "Split Tone" capability • Auto-Range Transponding System • Easy-to-read display with graphical and pictorial tools – user-changeable icons and fonts • Full-color strobe LED • Spectrum scope display • 24-hour clock • On/Off timers • Internet key for instant access to WIRES™ internet-linking • "Quick-Draw" swivel-mount belt clip • 7.4V 130mAh lithium-ion battery • Choose black or silver • 2.4"w x 3.5"h x 1.1"d, 9.2 oz... **$329.99**

**VX-7RB** Same radio as the above VX-7R with a black case..... **$329.99**

*Available Accessories*

**ADMS1G** Programming software, **CD15A** Rapid charger for NC72B, **CMP460A** Waterproof speaker/mic, **CN3** BNC-SMA adapter, **CSC88** Soft case, **CT91** Microphone adapter, **EDC5B** DC adapter/filter, **EDC6** DC adapter/plug/wire only, **FBA23** 2 "AA" cell battery case, **FNB80LI** 7.4V 1300mAh lithium-ion, **MH57A4B** Speaker/mic, **NC72B** Wall charger, **SU1** Altitude/barometric pressure sensor, **VC27** Earpiece/mic



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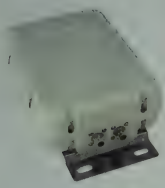
# IC-910H

## VHF/UHF ALL MODE SATELLITE TRANSCEIVER

# The final frontier suddenly got a lot closer

Enjoy an extraterrestrial experience with the IC-910H. Satellite ops are where this rig really takes off! Downlink and uplink frequencies display simultaneously as the main and sub-bands on the large, easy to read screen. Normal/reverse tracking. Doppler shift compensation is a breeze. Unmatched power output for its size and exceptional Rx sensitivity gives you the power to reach those birds that others miss! The final frontier... it's as close as AES.

100W VHF/75W UHF Variable Output • All Mode • Simultaneously Works Two Bands at Once • 9600 bps High Speed PACKET Port • .11 µV Sensitivity • Main & Sub Band Functions for IF Shift, Sweep, NB, RF Attenuator • Large LCD Display • Four Versatile Scanning Functions • CTCSS Encode/Decode/Tone Scan • Built-in Keyer • PC Controllable • Memory Pad • Normal/Reverse Satellite Functions



### AG-2400

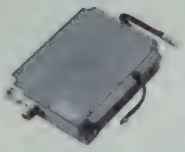
**Downlink Receive Converter**

Converts a 2400MHz RF signal to a 144MHz IF signal, allowing US mode operation. When used with optional UX-910, LS mode operation is also available.

### UT-106

**DSP Unit**

Provides AF-DSP (Digital Signal Processing) functions, including noise reduction and automatic notch filter. Use two, one for main band & one for sub-band.



### UX-910

**1200MHz Band Unit**

Turns the IC-910H into an all mode, tri-band transceiver. Also makes crossband and full duplex operation possible.

Out of this world!

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## SINGLE BAND HANDHELDS

| Manufacturer | ADI | ADI | ADI | ADI | ALINCO | ALINCO | ALINCO | ALINCO | ALINCO | ICOM | ICOM | ICOM | ICOM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Model | AT-201HP | AT-401HP | PR-52 | PR-222 | DJ-196T | DJ-296T | DJ-496T | DJ-S11T | DJ-S40T | IC-2GXAT/HP | IC-T2H SPORT | IC-T22A | IC-V8 |
| Band | 2 meters | 440MHz | 6 meters | 220MHz | 2 meters | 220MHz | 440MHz | 2 meters | 440MHz | 2 meters | 2 meters | 2 meters | 2 meters |
| Rx Range (MHz) | 130-179 | 420-470 | 40-54 | 216-228 | 135-174 | 222-225 | 430-450 | 144-148 | 425-450 | 144-148[8] | 136-174 | 136-174 | 136-174 |
| Aircraft Rx | No | No | No | [illegible] | No | No | No | No | No | No | No | No | No |
| Power Output | 5W | 5W | 5W | [illegible] | 5W | 5W | 5W | 340mW | 500mW | 7W | 6W | 5W[9] | 5.5W |
| Touch-Tone Pad | Yes | Yes | Yes | [illegible] | Yes | Yes | Yes | No | No | Yes | Yes | Yes | Yes |
| Tone Encode | Yes | Yes | Yes | [illegible] | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes[4] |
| Tone Decode | Yes | Yes | Yes | Yes | Yes[4] | Yes[4] | Yes[4] | No | Yes | Yes | Yes | Yes | Yes[4] |
| Memories | 40 | 40 | 40 | [illegible] | 40 | 40 | 40 | 21 | 100 | 43 | 40 | 80/40[10] | 100 |
| Alphanumeric | No | No | No | [illegible] | Yes | Yes | Yes | No | No | No | No | Yes | Yes |
| Battery Type | Ni-Cad | Ni-Cad | Ni-Cad | Ni-Cad | Ni-Cad | Ni-Cad | Ni-Cad | AA | AA | Ni-Cad | Ni-Cad* | Ni-Cad | Ni-Cad |
| PC Programmable | No | No | Yes | Yes | No | No | No | No | No | No | Yes | No | Yes |
| Antenna Conn | BNC | BNC | TNC[1] | BNC | BNC | BNC | BNC | Fixed[7] | SMA | BNC | BNC | BNC | BNC |
| Size (h/w/d, in.) | 3.3/2.2/1.2 | 3.3/2.2/1.2 | 4.25/2.0/0.75 | 4.25/2.0/0.75 | 4.9/2.2/1.6 | 4.9/2.2/1.6 | 4.9/2.2/1.6 | 3.9/2.2/1.1 | 4.0/2.2/1.2 | 4.9/2.2/1.4 | 4.5/2.3/1.3 | 4.8/2.3/1.1 | 5.2/2.1/1.4 |
| Weight (oz.) | 6.6 | 6.6 | 14.5 | 14.5 | 13.2 | 13.2 | 13.2 | 2.72 | 3.5 | 12.9 | 14.8 | 10.9 | 12.3 |

SOLD OUT

| Manufacturer | KENWOOD | KENWOOD | YAESU |
|---|---|---|---|
| Model | TH-22ATH | TH-K2AT | VX-150 |
| Band | 2 meters | 2 meters | 2 meters |
| Rx Range (MHz) | 136-174 | 136-174 | 140-174 |
| Aircraft Rx | No | No | No |
| Power Output | 5W | 5W | 5W |
| Touch-Tone Pad | Yes | Yes | Yes |
| Tone Encode | Yes | Yes | Yes |
| Tone Decode | TSU-8 | DCS | Yes |
| Memories | 41 | TBA | 200 |
| Alphanumeric | No | Yes | Yes |
| Battery Type | Ni-Cad | Ni-Cad | Ni-Cad |
| PC Programmable | No | TBA | Yes |
| Antenna Conn | BNC | TBA | SMA |
| Size (h/w/d, in.) | 4.6/2.2/1.0 | TBA | 4.3/2.3/1.0 |
| Weight (oz.) | 10.2 | TBA | 11.5 |

*Only alkaline case included
(1) TNC ant. jack commonly found on cell & commercial equip.
(4) Standard CTCSS plus DCS
(6) Guaranteed 440-450MHz only
(7) Folding ant. attached. 2m ant. - telescopic, 70cm - flex.
(8) Expandable to 136-174
(9) With external 13.8V
(10) 80 without Alphanumerics, 40 with Alphanumerics
(13) Dual operation between Voice & Data
(14) 1W with wall cube or cigarette adapter
**All radios are cell blocked**

**FREE ITEMS included with some radios.**
**See Price Guide for details.**

## MULTI BAND HANDHELDS

| Manufacturer | ALINCO | ALINCO | ALINCO | ICOM | ICOM | ICOM | ICOM | KENWOOD | KENWOOD | KENWOOD | YAESU | YAESU | YAESU | YAESU | YAESU |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Model | DJ-596T DJ-596TMKII | DJ-C5T | DJ-V5TH | IC-Q7ABC | IC-T7H | IC-T90A | IC-W32A | TH-D7A(G) | TH-F6A | TH-G71A | FT-50RD/41B | VX-1R | VX-2R | VX-5R VX-5RS | VX-7R VX-7RB |
| Tx Range (MHz) | 144-148 420-450 | 144-148 420-450 | 144-148 438-450 | 144-148 440-450 | 144-148 440-450 | 50-54 144-148 430-450 | 144-148 440-450 | 144-148 430-450 | 144-148 222-225 430-450 | 144-148 430-450 | 144-148 430-450 | 144-148 430-450 | 144-148 430-450 | 50-54 144-148 430-450 | 50-54, 144-148 222-225 430-450 |
| Rx Range (MHz) | 136-174 400-512 | 118-174 420-450 | 76-999 | 30-1300 | 118-174 400-470 | .495-999.99 | 118-174 400-470 | 118-174 400-480 | 0.1-1300 | 118-174 400-470 | 76-200 300-540 590-999 | .5-1.7 76-999 | .5-1000 | 0.5-16 48-729 800-999 | .5-16 48-730 800-900 |
| Single/Multi Rx | Single | Single | Single | Single | Single | Single | Dual | Single[13] | Dual | Single | Single | Single | Single | Single | Dual |
| Aircraft Rx | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Power Output | 5W | 300mW | 5W | 350mW | 6W | 5W | 5W | 5W | 5W | 5W | 5W | 500mW[14] | 1.5W (1W/70cm) | 5W | 5W (300mW/222) |
| Memories | 100 | 50 | 200 | 200 | 70 | 555 | 200 | 200 | 435 | 200 | 112 | 291 | 1300+ | 220 | 220 |
| CTCSS | Enc/Dec/DCS | Enc/Dec | Enc/Dec | Enc/Dec | Enc/Dec | Enc/Dec/DCS | Enc/Dec | Enc/Dec | Enc/Dec/DCS | Enc/Dec | Enc/Dec/DCS | Enc/Dec/DCS | Enc/Dec/DCS | Enc/Dec/DCS | Enc/Dec/DCS |
| TTP | Yes | No | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | No | Yes | Yes |
| Alphanumeric | Yes | No | Yes | No | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| PC Programmable | No | No | No | No | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Eventually | Yes | Yes |
| Battery Type | Ni-Cad | Li-ion | Ni-Cad | Ni-Cad | Ni-Cad | Li-ion | Ni-Cad | Ni-Cad | Li-ion | Ni-Cad | Ni-Cad | Li-ion | Li-ion | Li-ion | Li-ion |
| Ant.Connector | BNC | Fixed | SMA | SMA | BNC | SMA | BNC | SMA | SMA | SMA | SMA | SMA | SMA | SMA | SMA |
| Size (h/w/d, in.) | 4.9/2.2/1.6 | 3.7/2.2/0.4 | 3.8/2.3/1.3 | 3.8/2.3/1.1 | 4.8/2.3/1.1 | 3.4/2.3/1.2 | 5.5/2.3/1.4 | 4.7/2.1/1.7 | 3.4/2.3/1.2 | 4.4/2.1/1.3 | 3.9/2.3/1.2 | 3.2/1.9/1.0 | 3.2/1.9/0.9 | 4.1/2.4/1.3 | 3.5/2.3/1 |
| Weigh (oz.) | 13.2 | 3.2 | 12 | 6.4 | 14.3 | 8.5 | 16 | 13.4 | 8.8 | 11.6 | 11.5 | 4 | 4.7 | 10 | 19.6 |

# Heard it. Worked it. Logged it!

IC-756PROII

IC-746PRO

Icom's PRO series makes the difference between a successful QSO and a lost opportunity. Let the power of 32 Bit DSP show you how to pull signals out of the dirt that old analog rigs can't. There's a reason the worlds best DX'ers use Icom. Find out at AES.

• 32 Bit Floating Point IF DSP & 24 Bit AD/DA Converter • Selectable Digital IF Filter Shapes For SSB & CW • Improved 3rd Order Intercept Point • All Mode • CW Memory Keyer • VOX • Auto Antenna Tuner • AGC Loop Management • Auto & Manual Notch • Digital Twin Passband Tuning • Built-in RTTY Demodulator & Decoder • And More

IC-756PROII ADDITIONAL FEATURES • 5" TFT Color Display • Separate RX Only Antenna Jack • Transverter I/O Port • Live Band Scope • Digital & Analog Meter • Dual Receive • Digital Voice Recorder

IC-746PRO ADDITIONAL FEATURES • LCD Display • 9600 Baud Packet Capable • Digital Meter • RX Audio Equalizer • SWR Analyzer • Sweeping Scope

Why not? You deserve it!

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# ALINCO

**AMATEUR RADIO'S VALUE LEADER™**

## HF RADIOS

**DX-70TH** **Compact HF** Covers 160-6M • 150kHz-30MHz and 50-54MHz receive • SSB, CW, AM, FM • 100W (AM 40W) • Detachable face • 100 multi-function memories • Two VFOs • Easy split operation mode • Multi-function control • Narrow filter • Noise blanker • Speech processor • CTCSS for 10M and 6M repeaters • Full, semi or auto break-in CW • All mode squelch • General coverage receiver • Quick offset • Two scan modes • Separate antenna terminals for HF and 6M • RIT • TXIT • Selectable AGC • RF gain control • Dial lock • Automatic antenna tuner interface • MARS/CAP capability • 2.25"h x 7"w x 9"d, 8.3 lbs ..... **$699.99**

*Available Accessories*

**DM330MVT** 30 amp switching power supply with meter, **EBC8** Front control head bracket, **EBC9** Extra mobile bracket, **EDS4** 5' remote mount accessory cable kit, **EDS5** 5' mic extension cable, **EDS6** 15' remote cable, **EDX2** 160-10M auto wire tuner, **EMS14** Desk mic, **PC25** DC cable

**FREE ITEMS included with some radios. See Price Guide for details.**

**DX-77T** 160-10M • 500kHz-30MHz general rx • SSB/CW/AM/FM • 100W (AM 40W) • 100 multi-function memories • Two VFOs • PC control via optional cable and software • Direct digital synthesis • Easy split operation mode • Multi-function control • CW narrow filters • Noise blanker • 6–50 WPM electric keyer • Full, semi or auto break-in CW • All mode squelch • Quick offset • Two scan modes • RIT • High/low power setting control • Selectable AGC • RF gain control (RX) • Dial lock • Auto antenna tuner interface • Industry standard power input plug • MARS/ CAP capability • Requires 13.8V DC @ 20A • 3.6"h x 9.5"w x 9"d, 8.3 lbs . **$669.99**

*Available Accessories*

**DM330MVT** 30 amp switching power supply with meter, **EDS5** 5' mic extension cable, **EDX2** 160-10M auto wire tuner, **EMS14** Desk top microphone, **ERW4** PC cable, **PC25** DC cable

Secure
www.aesham.com

# ICOM

## DUAL BAND BASE STATION

**IC-910H** **VHF/UHF All Mode Transceiver** With the optional 1200MHz installed, it becomes an SSB/CW/FM tribander. • 144-148, 430-450 and 1240-1300MHz (option) • 99 regular memories, 1 call, 6 scan edges for each band, 10 satellite • 5-100W (2m),. 5-75W (440MHz), optional 1-10W (1200 MHz) • 3.5" multi-function LCD, 10-key direct enty keypad • Satellite mode support • Simultaneously works 2 bands in receive and full duplex • CW full support • Versatile scanning functions • Memory pad • 50 tone CTCSS encoder • One-touch and auto repeater functions • Speech compressor • IF shift • VOX • RIT • Requires 13.8V DC @ 23A • 9.5"w x 3.6"h x 9.4"d, 10 lbs ..... **$1099.99**

*Available Accessories*

**AG1200** 1.2gHz mast mount preamp, **AG2400** 2.4gHz mast mount down conv., **AG25** 2M mast mount preamp, **AG35** 430 mast mount preamp, **CR293** High stability crystal unit, **CT17** Level converter, **FL132** 500Hz main receiver CW filter, **FL133** 500Hz sub-band receiver CW filter, **MB23** Carrying handle, **MB5** Mobile mount, **PS125** 25A switching power supply, **SM20** Stand mic for base stations, **SP10** Slim-line external speaker, **SP7** Small external speaker, **UT102** Voice synthesizer, **UT106** DSP unit, **UX910** 10W 1.2gHz module

## HF RADIOS

**IC-718** **HF All Band Transceiver** Advanced features and performance, yet easy to use. Its simplfied operation is perfect for beginners or great as a back-up rig. • Covers 160–10M • Continuous receive coverage 0.03–30MHz • 100W output (40W AM) • Built-in USB, LSB, CW, RTTY (FSK) and AM • 101 memories • Variety of scanning functions • Front mounted loudspeaker • IF shift • Microphone compressor • RF gain control • Noise blanker • RF attenuator and preamp • Auto notch • Ample CW features include an electronic keyer • VOX • Flexible filter selection • Digital S/RF meter • High frequency stability • Optional voice synthesizer and DSP capability • Hand mic included • Requires 13.8VDC @ 20A • 9.4"w x 3.75"h x 9.4"d, 8.5 lb .... **$579.99**

*Available Accessories*

**AH2B** Whip with mount, **AH2BWHIPONLY** Extra whip only for AH2B, **AH4** 80-6M 120W auto wire antenna tuner, **AT180** HF+6M auto coax antenna tuner, **CR338** High stability crystal, **CT17** Level converter, **FL222** 1.9kHz 455kHz IF SSB filter, **FL257** 3.3kHz 455kHz IF SSB filter, **FL52A** 500Hz 455kHz IF CW filter, **FL53A** 250Hz 455kHz IF CW filter, **FL96** 2.8kHz 455kHz IF SSB filter, **MB23** Carrying handle, **MB5** Mobile mount, **OPC025D** DC cable, **OPC598** 23' extension cable for AT180, **PS125** 25A switching power supply, **SM20** Stand mic for base station, **SM6** Electret desk mic, **SP20** Speaker with audio filter, **SP21** Speaker, **SP7** Small external spker, **UT102** Voice synthesizer, **UT106** DSP unit

**IC-703** **HF QRP Transceiver** Multi-use versatility for the home or shack, mobile DX'ing in your car and as a field unit in the outdoors. Covers 160-10M and depending on the power supply, the rig is capable of 5W @ 9.6VDC and 10W @ 13.8VDC. It looks and feels like the famous IC-706 series, but in a QRP version without the VHF and UHF bands. The 703 offers a new built-in relay-type automatic antenna tuner for 50Ω antennas. • USB/LSB/CW/RTTY/AM/FM • 105 memory channels (99 split, 6 scan edges) • Maximum 10W output, adjustable steps (5W when using 9.6V batteries) • Memory keyer function • Large capacity external battery pack and antenna options suitable for field operation options • 6.563"w x 2.28"h x 4.875"d, 4.4 lbs ..... **$669.99**

**IC-703 PLUS** Same as above, plus 6M. **$769.99**

*Available Accessories*

**AH2B** Whip with mount, **AH2BWHIPONLY** Extra whip only for AH2B, **AH4** 80-6M 120W auto wire antenna tuner, **CT17** Level converter, **FL222** 1.9kHz 455kHz IF SSB filter, **FL257** 3.3kHz 455kHz IF SSB filter, **FL52A** 500Hz 455kHz IF CW filter, **FL53A** 250Hz 455kHz IF CW filter, **HM118TN** TTP microphone, **LC156** Back pack carrying case, **MB62** Mounting bracket for main unit, **MB63** Mounting bracket for control panel, **MB65** Mounting base platform, **MB72** Carrying handle, **OPC581** 11.5' separation cable, **OPC587** 16' separation cable, **OPC589** 8-pin mic jack adapter cable, **OPC599** 7+8-pin–13-pin adapter, **OPC742** 13-pin cable, **RMK706** Remote mounting kit, **SM20** Stand mic for base station, **SM6** Electret desk mic, **SP10** Slim-line external speaker, **SP7** Small external spkr, **UT102** Voice synthesizer

**IC-746PRO** **HF/VHF All Mode Transceiver** 160–10M + 6M + 2M • Continuous receive 0.03–60MHz, 108–174MHz • 100W (40W AM) • 32-bit floating DSP and 24-bit AD/DA converter • AGC loop management • IF filter width and shape variable • All mode signal mod/demodulation • RTTY demodulator and decoder • Digital twin PBT capability • 100 memories (10 "memo pad") • PSK-31 • Auto antenna tuner • 2 antenna connectors for HF/6M • IF-DSP noise reduction, auto notch and selectable audio peak filters • Noise blanker • Spectrum scope • Twin passband tuning • Triple band stacking register • 2-step preamp • RF speech compressor • Tone squelch/scan • VOX • SmarTune™ variable speed tuning • Auto repeater duplex setting • Quick split • CW pitch control • QSK • 4-memory keyer • QSO serial number generator • Transmit audio monitor • Up/down frequency mic • Requires 13.8V DC @ 20A • 11.3"w x 4.7"h x 12.5"d, 19.6 lbs **$1599.99**

*Available Accessories*

**BETIMATE** Better RF accessory, **AH2B** Whip with mount, **AH2BWHIPONLY** Extra whip only for AH2B, **AH4** 80-6M 120W auto wire antenna tuner, **CR338** High stability crystal unit, **CT17** Level converter, **OPC025D** DC cable, **PS125** 25A switching power supply, **SM20** Stand mic for base station, **SM6** Electret desk mic, **SP20** Speaker with audio filter, **SP21** Speaker, **UT102** Voice synthesizer

# Go QRP with the '703!

***Get out and win that contest! Especially with the bands down, see how QRP and the low floor noise of the great outdoors can combine to bring you out on top! Visit AES today and go QRP with the '703!***

- **IC-706MKIIG Operations.** Anyone who has a '706 will know how to operate without the manual!
- **HF or HF & 6M.** Icom's engineers focused on the bands that really mean the most to QRP operators.
- **Internal Antenna Tuner.** 160-10M or 160-6M*. Internal, automatic and designed with latching relays so no current draw when the match is achieved.
- **DSP.** That's right, pull out the weak signals! Automatic Notch and Noise Reduction is included.
- **Smart Power Mode.** The '703 knows when to throttle back the current to prolong battery life.
- **Low Current Consumption.** With current drain as low as 300mA on 9.6VDC, this QRP rig rivals some handheld radios. The '703 is designed for maximum efficiency!
- **CW Memory Keyer.** Contest QRP is sweet with the internal CW Memory Keyer. Three memories capable of holding 50 characters each. Variable pitch control (300-900Hz) with a bug, paddle, or straight key.
- **Big Ears.** Sensitivity of 0.16µVat 10dB S/N rivals some of the big rigs. This helps compensate for antenna compromises when you're in the field!
- **Cold Hands.** Don't worry, the '703 comes with the TXCO, so your frequency will not drift when you touch the knob with cold hands. Ready for outdoors!
- **Optional Backpack.** A must have accessory! With room for batteries and other gear! *See below.*
- **No Assembly Required.** The '703 is ready to go when you are!

## ACCESSORIES

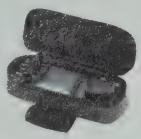
**LC-156 Backpack**

Designed by hams, for hams! Take your hobby with you into the great outdoors. The LC-156 offers plenty of room to store and protect your '703, batteries, antenna, and other gear!

(So cool, even '706 owners want one!)

**Controller Case**

Great for portable use, the handy controller case can be easily removed from the backpack and attached to your belt.



Go QRP!

www.icomamerica.com

ICOM®

*Depending on version.

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# ICOM

**IC-706 MK II-G** Compact HF/VHF/UHF All Mode Base station performance and features in a mobile-sized package. Coverage 160–10M + 6M, 2M and 70cm • 0.03–200MHz broadband receive with wide AM and wide FM broadcast • 100W (40W AM) from 160–6M, 50W (40W AM) on 2M, 20W (8W AM) on 70cm • RTTY • PSK31 • AF speech compressor • 107 alphanumeric memories • Detachable control panel • 2 filter slots • AF-DSP • Tone encode, scan and squelch • Cross band split • Noise blanker • IF shift • Preamp/attenuator • CW keyer • CW pitch control/reverse • Full break-in • VOX • Simple bandscope • SWR graphic sweep display • One-button duplex and auto repeater • Large built-in speaker • 2 antenna connectors • Requires 13.8V DC @ 20A • 6.6"w x 2.3"h x 7.9"d, 5.5 lbs..... **$799.99**

*Available Accessories*

**BET706TUNECONT** Better RF IC706 tune control, **AH2B** Whip with mount, **AH2BWHIPONLY** Extra whip only for AH2B, **AH4** 80-6M 120W auto wire antenna tuner, **AT180** HF+6M auto coax antenna tuner, **CR282** Stability crystal, **CT17** Level converter, **FL100** 500Hz 9MHz IF CW filter, **FL101** 250Hz 9MHz IF CW filter, **FL103** 2.8kHz 9MHz IF SSB filter, **FL223** 1.9kHz 9MHz IF SSB filter, **FL232** 350Hz 9MHz IF CW/RTTY filter, **HM118TN** TTP microphone, **LC156** Back pack carrying case, **MB62** Mounting bracket for main unit, **MB63** Mounting bracket for control panel, **MB65** Mounting base platform, **MB72** Carrying handle, **OPC025D** DC cord, **OPC581** 11.5' separation cable, **OPC587** 16' separation cable, **OPC589** 8-pin mic jack adapter cable, **OPC598** 23' extension cable for AT180, **OPC599** 7+8-pin–13-pin adapter, **OPC742** 13-pin cable, **PS125** 25A switching power supply, **RMK706** Remote mounting kit, **SM20** Stand mic for base station, **SM6** Electret desk mic, **SP10** Slim-line external speaker, **SP7** Small external speaker, **UT102** Voice synthesizer

**IC-756PRO II** HF/50MHz All Mode Transceiver 32 bit floating DSP digital IF filter with 41 selectable bandwidths, microphone equalizer, manual notch function, TFT 5" color LCD (selectable colors/schemes), digital twin passband tuning, and PSK31. • Continuous 0.03-60MHz rx • 100W (AM 75W) • 101 memories • AGC loop management • RF speech compressor • Twin peak audio filter • DPSN • RTTY demodulator • Digital noise reduction • CW wave form • Spectrum scope • Digital voice memories • Memory keyer and pad • Analog and digital meters • Complete CW features • Dual watch • Triple band stacking register • Quick split function • Antenna tuner • RIT and ΔTX control for main and sub-band • Dual antenna system • VOX • 2-level preamp and 3-level attenuator • Auto TS function • Scanning functions • CTCSS tone encoder • Noise blanker level control • Lower band scope floor noise level • DVR (band scope enabled) • Independent digital and voice mode settings • Disable compression in digital modes • 1/4 tuning steps in digital modes • SSB/CW synchronous tuning • 13.3" w 4.3"h x 11.2"d, 21 lbs..... **$2349.99**

*Available Accessories*

**BETIMATE** Better RF accessory, **AH2B** Whip with mount, **AH2BWHIPONLY** Extra whip only for AH2B, **AH4** 80-6M 120W auto wire antenna tuner, **CT17** Level converter, **HM36** Scanning hand mic, **OPC025D** DC cable, **PS125** 25A switching power supply, **SM20** Stand mic for base station, **SM6** Electret desk mic, **SP20** Speaker with audio filter, **SP21** Speaker, **UT102** Voice synthesizer

**Look For This NEW & Check Out AES' Latest Additions.**

# KENWOOD

## HF RADIOS

**TS-50S** HF Transceiver • Covers 160–10M • General coverage receive 500kHz–30MHz • 100W output SSB/CW and FM (AM 25W) • 100 memory channels • Multiple scan functions • Powerful menu system • Dual VFOs • Comprehensive interference reduction • Full and semi break-in • CW reverse mode • All-mode squelch • IF shift • Switchable AGC • 20dB attenuator • Noise blanker • Multi-function hand mic • 7"w x 2.3"h x 9.1"d, 6.4 lbs..... **$649.99**

*Available Accessories*

**AT50** HF external auto tuner, **KPS15** 23A switching power supply, **MC47** 8-pin hand mic, **MC60A** 8-pin amp desk mic, **MC80** 8-pin electret desk mic, **PG2Y** DC cable, **PG2Z** 6.5' heavy-duty DC cable, **PG4M** 18' extension cable for the AT50, **PS53** Heavy-duty power supply, **SO2** TCXO unit, **SP23** Speaker, **SP50B** External mobile speaker, **TC50** Travel case, **YK107C** 500Hz CW filter

**FREE ITEMS included with some radios. See Price Guide for details.**

**TS-570D(G)** HF Transceiver • Covers 160–10M • General coverage receive 500kHz–30MHz • Variable output: 5-100W SSB/CW/FM and FSK (AM 25W) • 100 memories with extensive functions • Large amber-colored backlit LCD display • 10-key direct entry • 46 EZ-to-use menu functions • Multiple scanning functions • 16-bit AF-stage DSP VOX • XIT/RIT • IF shift • Noise blanker • All mode squelch • TX audio shaping • Built-in electronic keyer • Full and semi break-in CW • CW message memory • CW auto tune • 38 tone CTCSS encoder and 1750Hz tone • TX audio shaping • Packet and FSK • PC control option • Two antenna ports and packet port • Built-in automatic antenna tuner • Requires 13.8V DC @ 20.5A • 10.6"w x 3.7"h x 10.6"d, 15 lbs • $100 Factory Rebate thru 11/29/03 (U.S. only)..... **$1089.99**

**TS-570S(G)** HF+6M Transceiver Same as the TS-570D(G), but covers 160–10M plus 6M. 50–54MHz general coverage receiver • $100 Factory Rebate thru 11/29/03 (U.S. only)..... **$1259.99**

*Available Accessories*

**DRU3A** Digital recording unit, **KPS15** 23A switching power supply, **MB430** Mobile mounting bracket, **MC43S** 8-pin hand mic, **MC60A** 8-pin amp desk mic, **MC80** 8-pin electret desk mic, **MC90** 2-head DSP desk mic, **PG2Y** 13' DC cable, **PG2Z** 6.5' heavy-duty DC cable, **PS53** Heavy-duty power supply, **SO2** TCXO unit, **SP23** Speaker, **SP50B** External mobile speaker, **VS3** Voice synthesizer, **YK88CN1** 270Hz CW filter, **YK88C1** 500Hz CW filter, **YK88SN1** 1.8kHz SSB filter

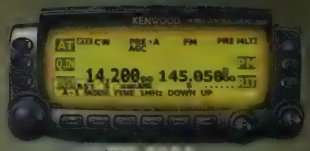
# The Most Versatile High Performance Amateur Transceiver Ever Produced.

**TS-2000**
HF/VHF/UHF Multi-Mode

or

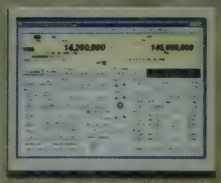
**TS-B2000**
HF/VHF/UHF Multi-Mode

**In the car get the highest HF/VHF/UHF DSP performance available.**




**RC-2000**
Compact Mobile Controller

**At home, get PC operation versatility for saving different operation profiles.**



**ARCP-2000**
PC Radio Control Program

**FREE Memory Control Program MCP software available via Internet**

The Kenwood TS-2000 system offers Amateurs the versatility of operation that has never been achieved. This Multi-band/Multi-mode transceiver offers several different operation methods that provide Amateurs with both high performance not available on competitive models as well as 4 distinct methods to operate. The TS-2000 is available with a full functioning front panel or as a "high tech" self enclosed TS-B2000 model. Both units can also utilize the 1.2 GHz UT-20 module for the widest range of transmit capabilities. Both units can be operated with the ARCP-2000 Radio Control Software or the unique, easy to use RC-2000/TM-D700A remote controller. Older TM-D700A displays can be modified to operate the TS-2000 series also. If that wasn't enough, Kenwood offers the capability to use the popular TH-D7AG handheld to operate HF and 6M via SkyCommand II.* The TS-2000 also is the World's First HF radio that has PC Flash-ROM capability, which means in the future your TS-2000 is self-upgradeable, no new versions or models to buy. It's easy to see the TS-2000 all adds up to the transceiver with features designed for the future, available today.

**TH-D7AG**
SkyCommand

KENWOOD
COMMUNICATIONS

**AMATEUR RADIO PRODUCTS**
3975 Johns Creek Court, Suwanee, GA 30024
P.O. Box 22745, Long Beach, CA 90801-5745, U.S.A.
Customer Support: (310) 639-4200 Fax: (310) 537-8235
01ARD-2149 #092201 *Skycommand II is pending FCC rule change.

ISO 9001
JQA-1205
Communications Equipment Division
Kenwood Corporation
ISO9001 certification

INTERNET

03ARD-2232 #022403

# KENWOOD

**TS-870S** **All Mode HF Transceiver** • Covers 160–10M • General coverage receive 100kHz–30 MHz • 100W output SSB/CW/FM/FSK (25W AM) • 100 memory channels • Multiple scanning modes • Menu function • Variable AGC • IF digital filter (DSP) • DSP detection • Dual mode noise reduction • Automatic notch filter • Voice equalizer • Speech processor • Transmit equalizer VOX • QSK digital IF filter • DSP noise reduction • IF stage auto-notch beat cancel function • Variable AGC circuit • Built-in electronic keyer • CW pitch control • CW reverse • Radio control software program • Auto antenna tuner on transmit and receive • Built-in antenna tuner dual antenna terminals • External receiver antenna output jack • EZ menu system CTCSS encoder • High quality digital recording option • RS-232C port • Requires 13.8V DC @ 20.5A • 13"w x 4.75"h x 13"d, 25 lbs..... **$2299.99**

*Available Accessories*

**DRU3A** Digital recording unit, **KPS15** 23A switching power supply, **MC43S** 8-pin hand mic, **MC60A** 8-pin amp desk mic, **MC80** 8-pin electret desk mic, **MC90** 2-head DSP desk mic, **PG2Y** 13' DC cable, **PG2Z** 6.5' heavy-duty DC cable, **PS52** Heavy-duty power supply, **SO2** TCXO, **SP31** External speaker, **VS2** Voice synthesizer

**TS-2000** **HF/VHF/UHF All Mode Transceiver** Offers 3 platforms: traditional transceiver with full function front panel, high-tech looking "silver box" version (TS-B2000), or computer controlled with software • 100W output on HF, 6M and 2M; 50W on 70cm; 10W on 1.2gHz (optional) • High performance true IF/stage DSP on main band, AF stage DSP on sub-band • Wide band receive • Digital filtering • Dual receive • Satellite ready, with transverter frequency display • Cross band repeat • Built-in auto tuner HF through 6M • Built-in TNC • Built-in RS-232 for computer control • Built-in TCXO (.5PPM) • CTCSS/DCS enc/dec • Electronic memory keyer • Backlit front key panel • 5+1 antenna ports – 2 for HF and 6M, 1 each for 2M, 70cm, 1.2GHz and HF receive ..... **$1699.99**

**TS-B2000** **HF/VHF/UHF All Mode Transceiver** Same as the TS-2000 with high-tech "silver box" look. Includes PC control software ..... **$1549.99**

**TS-2000X** **HF/VHF/UHF All Mode PC Controlled Transceiver** TS-2000 w/1.2GHz..... **$2299.99**

*Available Accessories*

**ARCP2000** PC/radio control software (included with B2000 model), **DRU3A** Digital recording unit, **KPS15** 23A switching power supply, **MB430** Mobile mounting bracket, **MC43S** 8-pin hand mic, **MC57DM** Lit TTP mic, **MC60A** 8-pin amp desk mic, **MC80** 8-pin electret desk mic, **MC90** 2-head DSP desk mic, **PG2Y** 13' DC cable, **PG2Z** DC cable, **PS53** Heavy-duty power supply, **RC2000** Remote face plate mobile kit, **SP23** Speaker, **VS3** Voice synthesizer

# MFJ ENTERPRISES, INC.

**8708** **Micro ATV Transmitter** Transmits a high quality amateur television audio and video signal on 433.97MHz (cable channel 58, 59 or 60). Plug in an antenna and a video source (video camera, camcorder, or VCR). With a TV set, or down converter, tuned to the appropriate channel, you'll have a complete low power ATV video station. Puts out 50 to 100mW signal, capable of transmitting up to 1.8 miles with a 3-element beam. By using a suitable UHF amplifier, enjoy ATV communications over an extended range with other ATV ham operators. Requires 9V battery or other source..... **$149.99**

## QRP SINGLE BAND CW TRANSCEIVERS

Easy operation! Sets up in seconds. • 5W CW • Great sensitivity – hot superhet receiver with super-quiet FET post amp stage in the IF filter • Excellent selectivity – tight CW bandwidth crystal ladder filter fights unwanted QRM and noise • Smooth and stable VFO (wide-spaced reduction drive VFO capacitor) • True RIT • Recovery AGC • Built-in 3" speaker • Low power drain – 50mA on receive and 1.2A peak on transmit • Semi-QSK – set adjustable hold transmit/receive switching to suit your normal sending speed or set for full QSK during contests • Compact • Four models below

**9015** 5W, 15M (21.000–21.200MHz)..... **$169.99**

**9020** 5W, 20M (14.000–14.075MHz)..... **$169.99**

**9030** 5W, 30M (10.100–10.150MHz)..... **$169.99**

**9040** 5W, 40M (7.000–7.150MHz)..... **$169.99**

*Available Accessories:*

**1772** Portable 20M dipole, **1774** Portable 40M dipole, **27** Handle for CW station, **4110** portable AC power supply, **4114** Rechargable power pack, **412** Plug-in Curtis keyer, **726** Plug-in audio filter, **971** 200W portable antenna tuner/meter

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**& Check Out AES' Latest Additions.**

## LOW POWER SINGLE BAND SSB TRANSCEIVERS

No microprocessor – turn on and tune in. • 20W PEP (Less on VHF models) – plus Constant Current™ syllabic speech processing for an added 4–6dB advantage to cut through noise, fading, and QRM • Handheld dynamic mic that complements speech processing • Low drain – 3A from 12V supply or battery • Low noise preamp and active double balanced mixer front end • Sharp 2.3kHz SSB crystal ladder filter reduces passband noise, fights QRM, and improves intelligibility • TVI protection (built-in 7 element lowpass filter) • Real S-meter • Reduction drive analog VFO allows scanning the band for signals quickly, then zeros in smoothly • Amplifier jack • 2.5h" x 6.5"w x 6"d

**9420X** 20M SSB (14.150–14.350MHz)... **$229.99**

**9440X** 40M SSB (7.150–7.3MHz)..... **$229.99**

**9475X** 75M SSB (3.75–4.00MHz)..... **$229.99**

*Available Accessories:*

**4110** Portable AC power supply, **4114** Rechargable power pack, **415B** CW adapter (9420X and 9440X only), **971** 200W HF tuner

# SGC

## HF SSB TRANSCEIVERS

**SG-2000 (04-01)** **HF SSB Global Radio Telephone** With full frequency coverage for voice and data. Talk anywhere in the world on the HF Ham bands, receive and send time sensitive documents, decode UPI transmissions, get latest weather reports or listen to shortwave broadcasts. Also, great for marine use. It can be fully computer controlled via a standard RS-232 connector. The front panel can also be used as a remote head terminal (up to 8 remote heads can be utilized). • 1.8–30MHz tx, 500kHz–30MHz general rx • 150W • Modes: A3A, A3H, A3J and CW in LSB/USB, true AM in receive mode and data • 100 field-programmable and 644 factory-programmed ITU & data channels • 100 programmable scan channels • 13.6 VDC @ 16A • 4.75"h x 10"w x 15"d, 12 lbs..... **$1569.99**

*Available Accessories:*

**0411** Standard remote head/bracket/20' cable, **0415** Remote mobile head (memory channels only), **5182** Fan kit for continuous transmit, **5234** RS232 interface, **5251** CA-1 HV feed wire, **5254** CA-2000 remote head cable, **5261** PSC/12-1 12' power supply cable/1 plug, **5262** PSC/12-2 12' power supply cable/2 plugs, **5304** PS-30 30/40A peak unregulated power supply, **5305** PS-50 50/70A peak unregulated power supply



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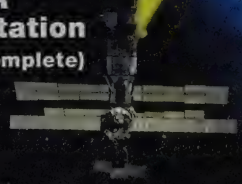
# Space Station to your Station

**TM-D700A**
2 meters & 440 MHz

**International Space Station**
**(On Board Soon)**

**TM-V7A**
2 meters & 440 MHz



**MIR Space Station**
**(Mission Complete)**

## The Chosen Few

**Kenwood is proud to be the only company chosen as a participant in both the INTERNATIONAL SPACE STATION (ISS) and MIR space programs. The TM-V7A received awards from the Russian Space Agency for its flawless performance aboard MIR. The KENWOOD TM-D700A 144/440MHz FM Dual Bander is scheduled to join the International Space Station in orbit later this year. But is it any wonder? This world class voice and data communicator has technologies which are perfect for any mission, whether on planet earth or in outer space. This all goes to show that operating a Kenwood Amateur Radio is out of this world.**

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SGC

**PowerTalk™ SG-2000 (04-10)** HF SSB Transceiver With the PowerTalk™ SG-2000, you'll intercept more weak HF signals, increase signal clarity and eliminate unwanted noise. You'll hear SSB signals clearer and easier than ever before. Combines SGC's exclusive ADSP™ (Automatic Digital Signal Processing) and SNS™ (Signal Noise Subtraction). A DSP command center with a high performance spinner knob and bright LED indicators. Includes all of the outstanding features of the SG-2000: 644 Ham and ITU discrete frequencies • 150W • Programmable memory • Large LCD ..... **$1849.99**

*Available Accessories:*
**5234** RS232 interface, **5251** CA-1 HV feed wire, **5254** CA-2000 remote head cable, **5261** PSC/12-1 12' power supply cable/1 plug, **5262** PSC/12-2 12' power supply cable/2 plugs, **5304** PS-30 30/40A peak unregulated power supply, **5305** PS-50 50/70A peak unregulated power supply

**SG-2020 (05-01)** Compact HF SSB/CW Transceiver Small, but fully microprocessor-controlled and loaded with "Big Rig" features. Take it and use it anywhere – fixed, mobile, portable, aviation or boating. Operating from 12V DC, it has the lowest current consumption on the market. • 1.8–29.7 MHz amateur bands • 400kHz–29.7MHz general coverage receive • SSB/CW modes • 0–20W PEP output, ad-justs down to 1W for QRP • 40 memories • Backlit LCD display • Built-in IAMBIC "B" mode electronic keyer • Noise blanker • RF speech processor and clipping • SWR metering and voltage indicator • SPLIT, RIT, XIT • AF bandpass tuning • Handheld, dynamic microphone • Requires 13.8V DC @ 3A • 2.75"h x 6"w x 7.5"d, 4.5 lbs . **$669.99**

**SG-2020 (05-04)** Same radio as above with 20 memories and the addition of ADSP2™. The added PowerClear™ DSP software provides superior tone rejection (better than 57dB) and dynamic noise rejection (better than 18dB) ..... **$789.99**

*Available Accessories:*
5422 SG-239 200W SmartTuner

YAESU

## HF TRANSCEIVERS

**FT-100D** Ultra-Compact HF/VHF/UHF All Mode Transceiver Widely acclaimed for outstanding performance and flexibility. Wide frequency coverage and versatile – a great compact mobile, vacation or expedition radio. Covers 160–6M, 144-148MHz, 430–450MHz • General receive: 100kHz–30MHz, 30–970MHz (cell blocked) • 100W output on HF/6M; 50W on 2M; 20W on 430MHz • DSP system enhances signal-to-noise ratio via bandpass, noise reduction and automatic notch filters • Dual VFOs • Electronic keyer built-in • 349 memories, including 4 Quick Banks • SmartSearch™ auto memory channel loading • Improved high-quality speaker • 500Hz, 8-pole crystal filter (CW) • High stability reference oscillator • CTCSS decode • Bright, multi-function LCD • VOX • Requires 13.8V DC @ 22A • 6.3"w x 2.1"h x 8"d ..... Closeout **$949.99**

*Available Accessories:*
**ATAS100** HF/6M/2M/430MHz motorized antenna, **ATAS120** HF/6/2/430 antenna, **ATBK100** ATAS100 base kit/use with mount, **CT39** Packet cable, **CT58** Band data cable, **CT62** CAT interface cable, **CT69** 6-pin mod/8-pin mic jack, **FC20** Automatic antenna tuner, **FP1023** 23A switching power supply with fan, **FP1030A** 25A power supply with meters, **LL5** Phone patch unit, **MLS100** Mobile speaker, **MMB62** Remote control panel bracket, **MMB67** Quick release bracket, **SP6** External speaker, **T9021925** Extra DC cord, **XF117A** 6kHz AM filter, **XF117CN** 300Hz CW filter, **YH77STA** Stereo headphone, **YSK100** Separation kit

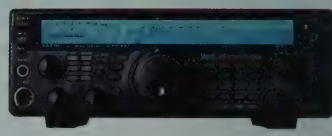
**FT-817** HF/VHF/UHF Backpack Transceiver Self-contained and low power for portability. • 160–10M, 50MHz, 144MHz, 430-450MHz, plus Alaska Emergency Channel (5167.5kHz) tx • 100kHz-56 MHz, 76-154 MHz, 420-470MHz, plus AM aircraft rx • 200 alphanumeric memories (home channels and band-limit) • SmartSearch™ memory loading • 5W SSB/CW/FM (13.8V external DC), 1.5W AM, 2.5W SSB/CW/FM (9.6V NiCad pack or 8 AA's, includes internal alkaline case), 0.7W AM, up to 5W SSB/CW/FM power programmable via menu (NiCad or AA's) • USB, LSB, CW, AM, FM, W-FM, AFSK, packet • RTTY, PSK31-U, PSK31-L, user-defined USB/LSB • 2-color, multi-function LCD • Meters ALC, power output, SWR, modulation • RF gain/squelch control • Noise blanker • Attenuator • Dual VFOs, split capability, IF shift, and RIT • Electronic keyer • VOX • Auto repeater shift • CTCSS/DCS • Front/rear antenna jacks • 3 accessory jacks • PC control capability • 5.31"w x 1.5"h x 6.5"d, 2.6 lbs..... **$729.99**

*Available Accessories:*
**W4ROTT1** One-touch tune, **CSC83** Soft case, **CT39** Packet cable, **CT62** Cat interface cable, **EDC6** DC cord, **FNB72** 9.6V 1000mAh NiCad, **MH36E8J** TTP mic, **MLS100** Mobile speaker, **NC72B** Wall charger, **TCXO9** TCXO unit, **YF122C** 500Hz Collins CW filter, **YF122CN** 300Hz Collins CW filter, **YF122S** 2.3kHz Collins SSB filter

**FT-840** Compact High Performance HF Transceiver Blending high performance digital synthesis techniques, convenience and affordability from previously successful radios, the FT-840 adds a choice of two optional remote automatic antenna tuners and a wealth of convenient functions. • Direct Digital Synthesis • Covers 160–10M with 50 kHz–30MHz general coverage receiver • 100W output (25W AM) • 100 memory channels • Low noise FET front end • Two direct digital synthesizers (DDSS) and magnetic rotary encoder for smooth tuning • Twin band-stacking VFOs • IF shift • Reverse CW • FM repeater with auto 10M repeater offset • Selectable CTCSS • Requires 13.8V DC @ 20A • 9.2"w x 3.6"h x 9.5"d, 9.9 lbs ..... **$699.99**

*Available Accessories:*
**FC10** Extra coax fed auto tuner, **FC800** Extra long wire auto tuner, **FIF232C** RS-232 interface, **FM747** FM unit, **FP1023** 23A switching power supply with fan, **FP1030A** 25A power supply with meters, **MD100A8X** Desk mic with tone control, **MD200A8X** Deluxe high fidelity desk mic, **MLS100** Mobile speaker, **MMB20** Mobile mount, **SP6** External spker, **TCXO4** TCXO unit, **T9018320** DC cord, **YF112A** 6kHz AM filter, **YF112C** 500Hz CW filter, **YH77STA** Stereo headphone

**FREE ITEMS included with some radios. See Price Guide for details.**



**FT-847** HF/VHF/UHF All Mode Transceiver All mode operation on HF, 50MHz, 144MHz, and 430MHz with full satellite capability • Covers 160–6M, 2M, 70cm and 5.1675MHz (Alaska emergency channel) • General receive: 100kHz–30MHz, 36–76MHz, 108–74MHz, 420–512 MHz • 100W output on HF/6M (25W AM); 50W (12.5W AM) on 2M/430 MHz • High resolution 0.1Hz tuning steps • Shuttle-Jog™ tuning ring • Direct frequency keypad entry • Low noise VHF/UHF preamps built-in • Advanced DSP system enhances signal-to-noise ratio via sophisticated bandpass, noise reduction and automatic notch filters • Cross band full duplex operation • Normal/reverse tracking • Dedicated satellite memories • 1200/9600 bps packet ready • CW sidetone/pitch control • Built-in CTCSS/DCS • Four antenna jacks (rear panel) • Requires 13.8V DC @ 22A • 10.2"w x 3.4"w x 10.6"d, 14.4 lbs • $300 Factory Rebate thru 12/31/03..... **$1579.99**

*Available Accessories:*
**ATAS100** HF/6M/2M/430MHz motorized antenna, **ATAS120** HF/6/2/430 antenna, **ATBK100** ATAS100 base kit, **CT39** Packet cable, **CT61** Amp interface cable, **FC20** Automatic antenna tuner, **FP1023** 23A switching power supply with fan, **FP1030A** 25A power supply with meters, **FVS1A** Voice synthesizer, **MD100A8X** Desk mic with tone control, **MD200A8X** Deluxe high fidelity desk mic, **MH36D8** DTMF mobile microphone, **MMB66** Mobile mounting bracket, **SP8** External speaker with filters, **T9018320** DC cord, **YF115C** 500Hz CW/Collins Mechanical filter, **YF115S02** 2.5kHz SSB/Collins Mechanical filter, **YH77STA** Stereo headphone

# YAESU

**FT-857 Ultra-compact, HF/VHF/UHF 100W All-Mode Mobile Transceiver** Blends the leading-edge technologies of the FT-897 and MARK-V into the world's smallest full-power HF multi-mode transceiver. Unique ergonomics deliver unmatched ease of use with an ultra-compact design featuring a large, main tuning dial. • 100W HF/6M, 50W 2M, 20W 70cm • Transmits on HF, 50MHz, 144MHz and 430MHz, plus 0.1–56MHz, 76–108MHz, 118-164MHz and 430-470MHz receive • 200 memories with 10 memory groups • Enhanced performance with optional DSP board • Large, multi-color dot matrix display • IF shift and noise blanker • IPO • AGC • CTCSS/DCS • Auto repeater shift • SmartSearch™ • Spectrum scope • ARTS™ • Optional remote-head operation and remote control microphone • 6.1"w x 2.0"h x 9.2"d, 4.6 lbs..... **$799.99**

*Available Accessories:*
**ATAS100** HF/6M/2M/430MHz motorized antenna, **ATAS120** HF/6/2/430 antenna, **ATBK100** ATAS100 base kit, **CT39** Packet cable, **CT58** Band data cable, **CT62** Cat interface cable, **DSP2** DSP unit, **FC30** External antenna tuner, **FP1023** 23A switching power supply, **FP1030A** 25A power supply with meters, **MD100A8X** Desk mic with tone control, **MD200A8X** Deluxe high fidelity desk microphone, **MH36E8J** TTP microphone, **MH59A8J** Remote control TTP microphone, **MLS100** Mobile speaker, **SP6** External speaker, **TCXO9** TCXO unit (0.5ppm), **YF122C** 500Hz Collins CW filter, **YF122CN** 300Hz Collins CW filter, **YF122S** 2.3kHz Collins SSB filter, **YH77STA** Stereo headphones, **YSK857** Separation kit

**FT-920 HF + 50MHz All Mode Transceiver** Direct digital frequency synthesis • 160–6M with 100 kHz–30MHz, 48–56MHz general receive • Power adjustable up to 100W (25W AM) • Multi-function tuning dials and keyboard frequency entry • 127 alphanumeric memories • Multiple scanning functions • Dual watch system • Quick memory bank system • Built-in high-speed antenna tuner, digital voice recorder and electronic memory keyer • DSP speech processor, auto notch filter, noise reduction and VOX control • CW spot and pitch controls IF shift • QSK and built-in electronic keyer • Noise blanker • Dual antenna jack plus receive-only antenna jack • ShuttleJog™ control • Independent RX preamps for high and low bands • OmniGlow™ LCD with twin frequency displays • RS-232 computer control interface • Requires 13.8VDC @ 22A • 15.2"w x 5.3"h x 12.5"d, 24 lbs..... **$1199.99**

*Available Accessories:*
**FM1** FM unit, **FP1023** 23A switching power supply with fan, **FP1030A** 25A power supply with meters, **LL7** Phone patch unit for SP8, **MD100A8X** Desk mic with tone control, **MD200A8X** Deluxe high fidelity desk mic, **SP8** External speaker with filters, **TCXO7** TCXO unit, **T9018320** DC cord, **YF116A** 6kHz AM filter, **YF116C** 500Hz CW filter, **YH77STA** Stereo headphone

**FT-897 HF/VHF/UHF Multi-Mode Portable/Base** Self-contained transceiver able to operate without external power supply! Using the optional 13.2V @ 4500mAh NiMH battery pack, operates at 20W on all bands except 430MHz (10W). Two batteries may be installed simultaneously giving up to 8 hours of use. • 100W (HF/50MHz), 50W(144MHz) and 20W (430MHz) on external 13.8V DC • Adjustable down to 5W • SSB/CW/AM/FM and digital modes • Large-diameter main tuning dial, similar to a base station • Built-in DSP • Selectable tuning steps (2kHz/4kHz) • Easy receiver offset tuning (clarifier) • Scrolling front panel, multi-function keys with instant "hot key" switching • RS-232 port • Built-in keyer • Rugged, aluminum, die-cast chassis • Thermostatically-controlled twin cooling fans • Optional HF/50MHz automatic antenna tuner (external mount) • 7.9"w x 3.14"h x 10.3"d, 8.6 lbs..... **$989.99**

*Available Accessories:*
**ATAS100** HF/6/2/430 motorized antenna, **ATAS120** HF/6/2/430 antenna, **ATBK100** ATAS100 base kit; use with mount, **CD24** 4-hour charge adapter, **CT39** Packet cable, **CT62** Cat interface cable, **FC30** Antenna tuner, **FNB78** 4.5ah NiMH, **FP30** Internal power supply, **MD100A8X** Desk mic with tone control, **MD200A8X** Deluxe high fidelity desk mic, **MH36E8J** TTP mic, **MLS100** Mobile speaker, **MMB80** Mounting bracket, **PA26B** Charger for CD24, **SP6** External speaker, **TCXO9** TCXO unit, **T9018320** DC cord, **YF122C** 500Hz Collins CW filter, **YF122CN** 300Hz Collins CW filter, **YF122S** 2.3kHz Collins SSB filter, **YH77STA** Stereo headphones

**FT-1000D 200W HF All-Mode Transceiver** Optimum receiver performance and real "muscle" on transmit. With a front panel featuring two flywheel weighted tuning knobs and two large displays, it's a perfect blend of ergonomics and electronics. • Direct Digital Synthesis • 160–10M with 100kHz–30MHz general receive • 100 memories store frequency, mode, and filter • Up to 200W output (AM 50W) • True cross-band dual receive (dual receiver front ends and IFs), two large tuning knobs • Front panel receive antenna switch for beverage or loop antenna • Built-in antenna tuner with 32 memories • CW spot and two CW key jacks for maximum convenience • CAT system for computer control • Built-in 110/220VAC power supply • 5.9"h x 16.4"w x 14.8"d, 31lbs..... Closeout **$3999.99**

*Available Accessories:*
**DVS2** Voice recording module, **FIF232C** RS-232 interface, **LL5** Phone patch unit, **MD100A8X** Desk mic with tone control, **MD200A8X** Deluxe high fidelity desk mic, **SP5** External speaker, **YF110CN** 250Hz CW filter/XFF, **YH77STA** Stereo headphone

**FT-1000MP MK V 200W HF All Mode Transceiver** The crowning achievement in Yaesu's HF transceiver design history. A unique blend of analog and digital technology, the MARK-V is based on the concept of rigorous filtering in all stages of the receiver and transceiver. Introduces all-new features to the FT-1000 series. • Interlocked Digital Bandwidth Tracking, which matches the receiver passbands of the 8.2MHz IF, 455kHz IF and DSP systems • Variable RF Front-end Filter, providing a high-Q "Preselector" system protecting the receiver's front end • 200W MOSFET final amplifier, conservatively rated with revolutionary heat sink design • 75W optional Class-A PA operation, providing extraordinary SSB signal purity • Integrated ShuttleJog™ control, combines IBDT and VRF access buttons with the Shuttle-Jog™ frequency control • High-speed automatic antenna tuner for 200W operation • Separate switching power supply, provides 30V for MOSFET PA transistors, and 13.8V for other circuitry • 16.4"w x 5.4"h x 13.9"d, 31 lbs. (xcvr), 4.2"w x 5.4"h x 13.6"d, 13 lbs. (power supply).. **$2699.99**

*Available Accessories:*
**DVS2** Voice recording module, **FH1** Remote control keypad, **FTV1000** 200W 6M transverter, **LL7** Phone patch unit for SP8, **MD100A8X** Desk mic with tone control, **MD200A8X** Deluxe high fidelity desk mic, **MH31B8** Extra hand mic, **SP8** External speaker with filters, **TCXO6** Deluxe TCXO unit, **YF110CN** 250Hz CW filter/XFF, **YF110SN** 2kHz SSB filter/XFD, **YF114CN** 250Hz CW second IF main receive, **YF114SN** 2kHz SSB second IF main receive, **YF115C** 500Hz CW/Collins Mechanical filter, **YH77STA** Stereo headphone

**MK V FIELD Leading-Edge Technology, 100W Self-Contained Design** 160-10M tx (amateur only), 100kHz-30MHz rx • All modes • Adjustable up to 100W (25W AM) • Selectable Class-A 25W SSB output • Self-contained 117/200VAC power supply, 13.8VDC optional • Built-in TCXO • Dual receive with independent AGC systems • Integrated digital bandwidth tracking • Enhanced DSP • Digital SSB mic equalizer and RF speech processor • Selectable digital modulation/demodulation • Digital auto-notch • Variable RF front-end filter • Selectable SSB pattern-contour filters • Three RF preamp modes +IPO (Direct Mixer Feed) • IF filter chain includes 10-pole Collins mechanical filter • Built-in antenna tuner • Electronic memory keyer • Outstanding CW features • Ergonomic, multi-function shuttle jog dial • 16"w x 5.3"h x 13.7"d, 33 lbs..... **$2179.99**

*Available Accessories:*
**DVS2** Voice recording module, **FH1** Remote control keypad, **FP29** Power supply for FTV1000, **FTV1000** 200W 6M transverter, **LL7** Phone patch unit for SP8, **MD100A8X** Desk mic with tone control, **MD200A8X** Deluxe high fidelity desk mic, **MH31B8** Extra hand mic, **SP8** External speaker with filters, **TCXO6** Deluxe TCXO unit, **YF110CN** 250Hz CW filter/XFF, **YF110SN** 2kHz SSB filter/XFD, **YF114CN** 250Hz CW second IF main receive, **YF114SN** 2kHz SSB second IF main receive, **YF115C** 500Hz CW/Collins Mechanical filter, **YH77STA** Stereo headphone

# SGC Your

## Hidden Operation

Facing restrictions? You want to be heard but not seen?

**Solution**: With an SGC Smartuner™ and a length of wire, you can run an antenna to fit the space you have available and still maximize your signal. There is no limit to the hidden solutions you can come up with. Talk to us about YOUR installation needs!

*SG-237*
*Cat# 54-18*

*SG-239*
*Cat# 54-22*

## On a Budget?

Always wanted a Smartuner, but didn't think you could afford it?

**Solution**: The SG-239 Budget Smartuner now available for a new low price. Smartuners are the original and still the best. You CAN afford SGC.

***Smart Choice! Smartuner***

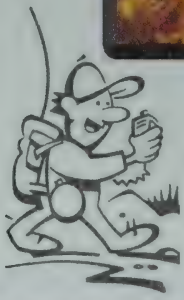
## Portable, Emergency Operation

It's a dark and stormy night and all the antennas are down!

**Solution**: The SGC STEALTH kit gets you on the air. It includes our most versatile Smartuner, the SG-237 as well as the wire and accessories you need to erect an emergency antenna.

*SG-2020 ADSP²*
*Cat# 05-04*

*STEALTH Kit*
*Cat# 54-23*



Portable operation can be rough. It can be tough. It can be damaging to your equipment especially in an emergency.

**Solution**: The SG-2020 ADSP² sets the standard for quality and reliability. It's a professional, rugged, portable HF radio with up to 26 dB of noise reduction. Perfect for base, backpack, or business trip.

Email: sgc@sgcworld.com Web: www.sgcworld.com

# HF Solution

## *Multiple Antennas*

Too many antennas and you want to tune them all?

**Solution**: The MAC-200 controls 5 antennas. It has a built in tuner and automatically selects the right antenna and the right settings for every HF frequency you operate. Handling an antenna farm was never as easy as this!

*MAC-200*
*Cat# 54-25*

## *Any Transceiver/Any Antenna*

*SG-231*
*Cat# 54-17*

The best transceiver and the best antenna for your needs probably don't match.

**Solution**: SGC Smartuners work with any transceiver and any antenna. They operate independently. They are simple to use: just press the microphone key and transmit! It's so easy, people often install a Smartuner and forget it's there.

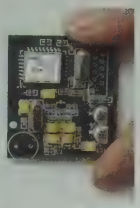
## *Noise Reduction for Everyone!*

Crowded Bands = Noisy Bands

**Solution**: Get a clearer signal with ADSP$^2$. It provides noise reduction beyond what is available in high-end base station units.

With up to 26 dB of noise reduction along with three proprietary band pass filters, ADSP$^2$ can be fitted to nearly any transceiver or enhance your ability to pull signals out of the background noise.

*ADSP$^2$ Lo*
*Cat# 70-11*



*ADSP$^2$ Speaker*
*Cat# 70-14*

SGC Building, 13737 SE 26th Street, Bellevue, WA 98005 USA 425-746-6310

AES
Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aeshom.com

## HF RADIOS

| Manufacturer | ALINCO* | ALINCO | ICOM* | ICOM* | ICOM | ICOM | ICOM | KENWOOD | KENWOOD | KENWOOD | KENWOOD | KENWOOD | MFJ | MFJ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Model | DX-70TH | DX-77T | IC-703<br>IC-703PLUS | IC-706MkIIG | IC-718 | IC-746PRO | IC-756PROII | TS-2000, TS-B2000<br>TS-2000X | TS-50S | TS-570D(G) | TS-570S(G) | TS-870S | 9015 | 9020 |
| Bands | HF, 6M | HF | HF<br>6M (Plus only) | HF, 6M<br>2M, 70CM | HF | HF, 6M, 2M | HF, 6M | HF, 6M, 2M<br>70CM, 1.2gHz | HF | HF | HF, 6M | HF | 15M | 20M |
| Rx Range (MHz) | .15-30, 50-54 | .5-30 | .03-30<br>30-60 (Plus only) | .03-200<br>400-470 | .03-30 | .03-200 | .03-60 | .03-60, 142-152<br>420-450<br>1240-1300* | .5-30 | .5-30 | .5-30, 6M | .1-30 | 21-<br>21.2 | 14-<br>14.075 |
| Power (SSB/CW/FM) | 100W HF/6M | 10-100W | 10/5W | 5-100 HF/6M<br>5-50 2M<br>2-20 70CM | 5-100W(7) | 5-100 HF/6M/2M | 5-100 | 100W HF/6/2M<br>50W 70CM<br>10W 1.2gHz* | 100W | 5-100W | 5-100W HF/6M | 100W | 5W CW | 5W CW |
| Power (AM) | 40W HF/6M | 4-40W | 2/4W | 2-40W HF/6M<br>2-20W 2M<br>2-8W 70CM | 2-40W | 5-40W HF/6M/2M | 5-40 | 25W HF/6/2M<br>12.5W 70CM<br>2.5W 1.2gHz* | 5-40W | 5-25W | 5-25W | 25W | No | No |
| DSP | No | No | Yes | Yes | Optional | Yes | Yes | Yes | No | Yes | Yes | Yes | No | No |
| Tuner | No | No | Yes | Optional | Optional | Internal | Internal | Yes | No | Yes | Yes | Yes | No | No |
| Keyer | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | No | No |
| Speech Readout | No | No | Optional | Optional | Optional | Optional | Optional | Yes | No | Optional | Optional | Optional | No | No |
| VOX | No | No | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | No | No |
| Power Requirements | 12VDC<br>20A | 12VDC<br>20A | 9-15.8VDC<br>2/3A | 12VDC<br>20A | 12VDC<br>20A | 12VDC<br>20A | 12VDC<br>23A | 12VDC<br>20.5A | 12VDC<br>20.5A | 12VDC<br>20.5A | 12VDC<br>20.5A | 12VDC<br>20.5A | 12VDC<br>12A | 12VDC<br>12A |
| Antenna ports | 2(1) | 1 | 1 | 2(3) | 1 | 3(4) | 2 | 5 | 1 | 2 | 2 | 2 | 1 | 1 |
| Computer Port | No | Optional | Yes | Optional | Optional | Optional | Optional | Yes | Optional | RS-232 | RS-232 | RS-232 | No | No |
| Height (in.) | 2.3 | 3.7 | 2.3 | 2.3 | 3.75 | 4.7 | 4.3 | 3.75 | 2.4 | 3.8 | 3.8 | 4.8 | 2.5 | 2.5 |
| Width (in.) | 7 | 9.8 | 6.56 | 6.6 | 9.44 | 11.3 | 18.3 | 10.625 | 7.1 | 10.6 | 10.6 | 13 | 6.5 | 6.5 |
| Depth (in.) | 9 | 9 | 4.87 | 7.9 | 9.40 | 12.5 | 11.2 | 12.5 | 9.2 | 10.7 | 10.7 | 13.1 | 6 | 6 |
| Weight (lbs.) | 6 | 8.4 | 4.4 | 5.5 | 8.4 | 19.5 | 21 | 17.19 | 6.4 | 15 | 15 | 25.4 | 2 | 2 |

| Manufacturer | MFJ | MFJ | MFJ | MFJ | MFJ | SGC* | SGC* | SGC | YAESU* | YAESU | YAESU | YAESU | YAESU | YAESU | YAESU | YAESU | YAESU | YAESU |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Model | 9030 | 9040 | 9420X | 9440X | 9475X | 04-01<br>SG-2000 | 04-10<br>POWERTALK | 05-01/05-04<br>SG-2020 | FT-100D | FT-817 | FT-840 | FT-847 | FT-857 | FT-897 | FT-920 | FT-1000D | FT-1000MP<br>MKV | MK V FIELD |
| Bands | 30M | 40M | 20M | 40M | 75M | HF | HF | HF | HF, 6M<br>2M, 70CM | HF, 6M<br>2M, 70CM | HF | HF, 6M<br>2M, 70CM | HF, 6M<br>2M, 70CM | HF, 6M<br>2M, 70CM | HF, 6M | HF | HF | HF |
| Rx Range (MHz) | 10.1-<br>10.15 | 7-7.15 | 14.15-<br>14.35 | 7.15-7.3 | 3.75-4 | .5-30 | .5-30 | 1.8-29.7 | .1-961(6) | .1-56<br>76-154<br>420-470 | .1-30 | .1-30, 36-76<br>108-174<br>420-512 | .1-56, 76-108<br>118-164<br>420-470 | .1-56, 76-108<br>118-164<br>420-470 | .1-30<br>48-56 | .1-30 | .1-30 | .1-30 |
| Power (SSB/CW/FM) | 5W CW | 5W CW | 12W SSB | 12W SSB | 12W SSB | 150W<br>SSB/CW | 150W<br>SSB/CW | 0-20W<br>SSB/CW | 100W HF/6M<br>50W 2M<br>20W 70CM | 5W | 100W(2) | 5-100W HF/6M<br>50W 2M/70CM | 100W HF<br>50W 2M<br>20W 70CM | 100W HF/6M(8)<br>50W 2M(8)<br>20W 70CM(8) | 10-100W(2) | 20-200W | 200W | 100W |
| Power (AM) | No | No | No | No | No | 40W | 40W | No | 25W HF/6M<br>12.5W 2M<br>5W 70CM | 1.5W | 25W | 25W HF/6M<br>12.5W 2M<br>12.5W 70CM | 25W HF<br>12.5 2M<br>5W 70CM | 25W HF/6M(9)<br>12.5W 2M(9)<br>5W 70CM(9) | 2.5-25W | 50W | 50W | 25W |
| DSP | No | No | No | No | No | No | Yes | No | Yes | No | No | Yes | Optional | Yes | Yes | No | Yes | Yes |
| Tuner | No | No | No | No | No | No | No | No | No | No | No | No | No | No | Yes | Yes | Yes | Yes |
| Keyer | No | No | No | No | No | No | No | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Speech Readout | No | No | No | No | No | No | No | No | No | No | No | Optional | No | No | No | No | No | No |
| VOX | No | No | No | No | No | No | No | No | Yes | Yes | No | No | Yes | Yes | Yes | Yes | Yes | Yes |
| Power Requirements | 12VDC<br>1.2A | 12VDC<br>1.2A | 12VDC<br>1.2A | 12VDC<br>1.2A | 12VDC<br>1.2A | 12VDC<br>30A | 12VDC<br>30A | 12VDC<br>5A | 13.8VDC<br>22A | 12VDC<br>2A | 13.8VDC<br>22A | 13.8VDC<br>22A | 12VDC<br>22A | 13.8VDC<br>22A | 13.8VDC<br>22A | 125VAC | FP29 30V<br>(supplied) | 125VAC<br>13.8VDC |
| Antenna ports | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2(3) | 2 | 1 | 4(5) | 2 | 2 | 2 | 1 | 2 | 2 |
| Computer Port | No | No | No | No | No | Optional | Optional | Optional | Optional | Yes | Optional | RS-232 | Optional | RS-232 | Optional | Optional | Yes | Yes |
| Height (in.) | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 4.6 | 4.6 | 2.75 | 2.2 | 1.5 | 3.7 | 3.4 | 2 | 3.14 | 5.3 | 5.9 | 5.4 | 5.3 |
| Width (in.) | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 10 | 10 | 6 | 6.3 | 5.3 | 9.4 | 10.2 | 6.1 | 7.9 | 16.1 | 16.4 | 16.4 | 16 |
| Depth (in.) | 6 | 6 | 6 | 6 | 6 | 15 | 15 | 7.25 | 8 | 6.5 | 9.6 | 10.6 | 9.2 | 10.3 | 12.4 | 14.8 | 13.9 | 13.7 |
| Weight (lbs.) | 2 | 2 | 2 | 2 | 2 | 12 | 12 | 2.5 | 6.6 | 2.6 | 12 | 14.4 | 4.6 | 8.6 | 30.8 | 51 | 31 | 33 |

*Remotable control head
*Optional module required for TS-2000 and B versions
(1) One port for HF; one port for 6M
(2) Optional board required for FM
(3) HF/6M one port, 2M/440MHz second port
(4) Two ports for HF, one dedicated for 2M
(5) Port per band. HF/6M can be combined
(6) Cell blocked
(7) No FM
(8) On internal batteries: 20W (10W on 70cm)
(9) On internal batteries: 5W (2.5W on 70cm)

**FREE ITEMS included with some radios.**
**See Price Guide for details.**

## SINGLE BAND MOBILE RADIOS

The AR-147+, 247 and 447 include features expected in a modern mobile including AM air receive (147+ only), direct frequency entry, lots of memory channels and more. Both CTCSS and DCS to ensure compatibility with all repeater systems. • MARS/CAP capable • 80 multi-function memories plus call • Auto repeater offset • 9 DTMF autodialer memories + redialer • Programmable band, memory scan and frequency/channel display • DTMF paging • Dual frequency watch • PC programmable

**AR-147+** **2M Mobile** Transmit: 144–148MHz • Receive: 118–171MHz • Three power settings (60, 10, 5W) • 1.5" x 5.5" x 6.25", 2.7lbs ..... **$149.99**

**AR-247** **220MHz Mobile** Transmit: 222–225MHz • Receive: 216–229MHz • Three power settings (30, 10, 5W) • 1.5" x 5.5" x 6.25", 2.7lbs ..... **$209.99**

**AR-447** **70 Centimeter Mobile** Transmit: 430–450MHz • Receive: 420–460MHz • 3 power settings (35, 10, 5W) • 1.5" x 5.5" x 6.25", 2.7lbs. **$209.99**

*Available Accessories:*
MTGBKT Mobile bracket, PROG47 PC programming software and cable, PWRCORD DC cable

ALINCO®
AMATEUR RADIO'S VALUE LEADER™

## SINGLE BAND MOBILES

**DR-M06TH** **6M FM Transceiver** Covers 50-54MHz • FM, selectable 20/1W output • 100 memories plus CALL channel • 50 tone CTCSS encoder • Programmable repeater offset for each memory channel • Time-out-timer • 13.8V DC @ 3A • 5.5"w x 1.5"h x 4.5"d, 1.6 lbs • Includes DTMF hand mic **$259.99**

*Available Accessories:*
HK130 Hardware kit, MB130 Mounting bracket, PC15B DC cable

**FREE ITEMS included with some radios. See Price Guide for details.**

**DR-135TP** **2M Mobile/Base Voice/Data Transceiver** 144–148MHz tx; 118–135.995MHz (AM aircraft), 136–173.995MHz rx • 50/10/5W • Wide or narrow FM • 1200/9600bps TNC • 100 alphanumeric memories • 7-character, 3-mode display • CTCSS/DCS, 4 Euro bursts • Backlit DTMF mic • 10 autodial memories • Multi scan modes • Front panel GPS input • Rear PC connection • Ignition key on/off • Theft alarm • 13.8V DC @ 11A • 5.58"w x 1.57"h x 6.83"d, 2.3 lbs.. C/O **$269.99**

**DR-135TPMKII** Same as 135TP with addition of ± 2.5ppm crystal and new digital board.. **$269.99**

**DR-135TMKII** Same as 135T with addition of ± 2.5ppm crystal and new digital board..... **$169.99**

**DR-235T** 135T, but covers 222–224.995MHz tx, 216–279.995MHz rx • 25W/10/5W. C/O **$249.99**

**DR-435T** Same as DR-135T, but covers 430–450 MHz tx, 400–470MHz rx • 35W ..... C/O **$259.99**

**DR-435TMKII** Same as 435T with addition of ± 2.5ppm crystal and new digital board..... **$269.99**

*Available Accessories:*
EDC37 DC cable, EDC43 Cigarette lighter cable, EJ40U Digital board (T's and TP's only), EJ41U 1200/9600 TNC (T's and TMKII's only), EJ47U Digital board (MKII's only), ERW4 PC cable for 235T, 435T), HK130 Hardware kit, MB130 Mounting bracket, PC15B DC cable, SW620 Windows programming software

## DUAL BAND MOBILES

**DR-620T** **Twin Band Mobile** Operates on 2M and 70cm. 144-147.995, 430-449.995MHz transmit, and 108-173.995, 335-480, 87.5-108MHz receive. AM Aircraft band reception and MARS modifiable. VHF/UHF operation includes V/U, V/V and U/U (Not capable of full-duplex V/U,V/V,U/U operation). • 200 memories • 50/10/5W VHF, 35/10/5W UHF • Built-in duplexer • Large, alphanumeric, selectable color display • Removable control head can be remote mounted or allow transceiver to be inverted • Optional 1200/9600 bps packet • Direct GPS input for APRS mobile tracking (optional) • Digital voice (optional) • Illuminated DTMF mic allows direct VFO frequency entry and remote control • CTCSS/DCS encode/decode (4 tone bursts) • Programmable VFO and memory scan including timed, busy and skip modes • Time-out timer • Busy-channel lock out • Temperature-compensated crystal oscillator • Ignition key power on/off feature • Power supply voltage display • Theft alarm • 5.5"w x 1.6"h x 7.3"d, 2.2 lbs..... **$339.99**

*Available Accessories:*
EDCS9 Separation kit, EJ47U Digital board, EJ50U TNC unit, HK130 Hardware kit, MB130 Mounting bracket, PC15B DC cable, SW620 Windows programming software

**DR-605TQ** **FM Dualbander** 144–147.995MHz, 430-449.995MHz tx; 136–173.995MHz, 420–470 MHz rx • 50/10/5W (VHF), 35/10/5W (UHF) • 50 memories, 1 call per band • Cross band repeat, full duplex • Dual VHF/UHF only displays • Multi scan functions • CTCSS encode, 3 European tone bursts • Twin volume controls • Packet compatible • Cable cloning • Internal antenna duplexer • 13.8V DC @ 11.5A • 5.58"w x 1.57"h x 6.8"d, 2.4lbs .. **$339.99**

*Available Accessories:*
EDS8 EMS14–DR605 adapter, EMS14 Desk top mic, HK130 Hardware kit, MB130 Mounting bracket, PC15B DC cable

ICOM®

## SINGLE BAND MOBILE

**IC-2100H-25N** **Rugged 2M Transceiver** Icom's best performer against IMD. Straight-forward operation • 50/10/5W • 144-148MHz transmit • 136-174 MHz receive • One-touch button operation • 113 memories • Dual, alphanumeric, selectable green/amber backlit display • Backlit TTP mic with 2 programmable keys • One-piece, diecast aluminum chassis • Adjustable attenuator • CTCSS tone enc/decode (50 tones) • Tone scan • Auto repeater with busy lockout • Priority watch • Cloning capability • Mounting bracket • Built to military spec for shock and vibration • Requires 13.8V DC @ 12A • 5.5"w x 1.6"h x 7.1"d, 2 lbs., 10 oz..... **$169.99**

*Available Accessories:*
BC96 Microphone holder, CSW2100 Windows software and cable, CS2100 DOS cloning software, EX1759 Infrared receiver, HM133S Extra touch-tone mic, HM90A Wireless microphone, MB17A Quick release bracket, MB28H Mobile bracket, OPC346 9.8' DC cable, OPC347 23' DC power cable, OPC440 16.4' mic extension cable, OPC441 Speaker extension cable, OPC474 Radio-to-radio cloning cable, OPC478 PC cable, OPC589 8-pin mic jack adapter cable, OPC647 8.2' microphone extension cable, SP10 Slim-line external spkr

**Look For This NEW & Check Out AES' Latest Additions.**

ICOM

**IC-V8000** **2M FM Transceiver** 75W output power – a first! • TX 144-148, RX 136-174MHz • 207 alphanumeric memory channels including 1 call channel, 6 scan edges • Weather alert and weather channel scan • DMS scan system • Each memory channel stores a 6 character name, tone frequency, skip info, and more • Priority watch • CTCSS/DTCS • Dynamic Memory Scan, customize/manage memory banks • DTMF encode and pager function capability • 10 DTMF memory channels with up to 24 digit DTMF codes • Versatile cloning from transceiver to transceiver or PC to transceiver • Front mounted speaker • One-piece, die-cast, rugged, aluminum chassis • Large cooling fan on the back and large cooling fins • Selectable green or amber display • Includes HM-133V remote control microphone • 5.9"w x2"h x 5.9"d, 2.22 lbs..... **$199.99**

*Available Accessories:*
**CSV8000** Windows software, **OPC1132** 9.8' DC cable, **OPC347** 23' DC cable, **OPC440** 16.4' mic extension cable, **OPC441** Speaker extension cable, **OPC474** Radio-to-radio cloning cable, **OPC478** PC cable, **OPC478U** PC USB cable, **OPC589** 8-pin mic jack adapter cable, **OPC647** 8.2' mic extension cable, **SP10** Slim-line external speaker, **UT108** DTMF decoder unit, **V8000MMB** Mobile bracket

## DUAL BAND MOBILES

**IC-208H** **2M/440 Dualband Mobile** More power, wider receive, lots of memory! Powerful 55/50W (2M/440) output • 118-173, 230-549, 810-999MHz (cell blocked) wide band receive • Weather channel and alert • 500 6-character alphanumeric memory channels • Improved Dynamic Memory Scan (10 banks, 2-100 channels per bank) • New bank listing allows selection of banks you want to scan • Built-in CTCSS/DTCS tone squelch • Operate with control head attached or remote mounted with included cable • Pocket beep and tone scan • 16 DTMF memories • 9600bps data connector • Auto repeater function • Multicolor display lighting and backlit buttons • Remote control microphone included • 5.56"w x 1.56"h x 7.31"d, 2.65 lbs..... **$329.99**

*Available Accessories:*
**CS208** Windows cloning software, **MB17A** Quick release bracket, **MB58** Remote controller bracket, **MB65** Mounting base platform, **OPC1132** 9.8' DC cable, **OPC347** 23' DC power cable, **OPC440** 16.4' mic extension cable, **OPC441** Speaker extension cable, **OPC474** Radio-to-radio cloning cable, **OPC478** PC RS232C cable, **OPC478U** PC USB cable, **OPC589** 8-pin mic jack adapter cable, **OPC601** 23' separation kit, **OPC647** 8.2' mic extension cable, **SP10** Slim-line external speaker

**IC-2720H** **2M/70cm FM Transceiver** Provides VHF/VHF, UHF/UHF simultaneous receive capability along with VHF/ UHF full duplex. • Wide/narrow channel spacing • 144-148, 430-450MHz tx • Extra wideband (cell blocked) receive 118-550MHz (left), 118-174, 375-550, 810-999MHz (right) • Weather, WX alert, and Air bands • 212 memories (10 banks), 2 call and 10 scan edges • Auto repeater function • 50/35W (2M/70cm) • Full function, backlit remote control mic with "hot keys" • Wide viewing angle • Independent controls for each band • 12 DTMF memories • User-selectable amber/ green display, adjustable brightness • CTCSS/DTCS enc/ decode with tone scan and pocket beep • Dynamic memory scan • Control head and main unit mic jacks • 1200/9600 bps 6-pin terminal • PC programmable (optional software and cable) • 11.5' separation cable included • 13.8V DC @ 12A • 5.5"w x 2" h x 1.1"d, 5.29 oz. (head), 5.5"w x 1.6 "h x 7.4"d, 3.08 lbs. (main)..... **$379.99**

*Available Accessories:*
**CS2720** Windows/DOS cloning software, **MB17A** Quick release bracket, **MB65** Mounting base platform, **MB84** Remote controller bracket, **MB85** Combination bracket, **OPC1132** 9.8' DC cable, **OPC1156** 11.5' separation cable, **OPC347** 23' DC power cable, **OPC440** 16.4' mic extension cable, **OPC441** Speaker extension cable, **OPC474** Radio-to-radio cloning software, **OPC478** PC RS232C cable, **OPC478U** PC USB cable, **OPC589** 8-pin mic jack adapter cable, **OPC647** 8.2' mic extension cable, **SP10** Slim-line external speaker

KENWOOD

## SINGLE BAND FM MOBILE TRANSCEIVERS

Fully loaded with features and built to demanding MIL-STD specifications. Supremely user-friendly. • High RF output • 61 multi-function memory channels plus 1 call channel • Memory Name (MN) function with 6-digit alphanumeric display • DTSS selective calling • Multi-scan capability • Dual menu system • Multi-function microphone with backlit keys • DTMF memory function • Built-in CTCSS tone encoder (optional decoder) • Tone scan • Wireless cloning function • Repeater reverse switch • Lock function • Busy channel lock out • Auto power-off • Time-out timer • 13.8V DC @ <11A • 5.5"w x 1.5"h x 6.3"d, 2.2 lbs.

**TM-261A** 2M *(pictured)* 144-148MHz transmit; 118-174MHz receive • AM Airband receive • 50/10/5W • Auto repeater offset ..... **$149.99**

**TM-461A** **440MHz** 438-450MHz transmit; 400-470 MHz receive • 35/10/5W • Looks similar to TM-261A except for frequency display ..... **$439.99**

*Available Accessories:*
**MB201** Mobile brket, **MJ88** Modular/8-pin adapter, **PG2N** DC cable, **SP50B** External mobile spkr, **TSU8** CTCSS decoder

**TM-331A** **220MHz FM Mobile Transceiver** Rugged and compact with features that guarantee reliable performance. Covers 222-225MHz transmit and receive • 25/10/5W • Easy-to-read, illuminated keys plus large LCD • 20 multi-function memory channels plus call channel • Multi-scan capability • Tone alert with elapsed time indicator • Page function • CTCSS tone encoder • Time-out timer • Lock function • Auto repeater offset • Repeater reverse switch • Multi-function mic supplied • 13.8V DC @ 6.5A • 5.5"w x 1.5"h x 6.3"d, 2.5 lbs..... **$499.99**

*Available Accessories:*
**KQT8** CTCSS decoder, **MB201** Mobile brket, **PG2N** DC cable, **SP50B** External mobile speaker

**FREE ITEMS included with some radios. See Price Guide for details.**

**TM-541A** **1200MHz FM Mobile Transceiver** Extremely compact and lightweight, perfect for mobile installation. Enhanced night-time operation with its illuminated keys, large LCD, and backlit microphone with DTMF. Covers 1240-1300MHz transmit and receive • 10W RF power output • Easy-to-read, easy to operate illuminated keys plus large LCD display • 20 multi-function memory channels plus call channel • Built-in CTCSS tone encoder • ALT (Automatic Lock Tuning) • Tone alert system with elapsed time indicator • DTSS (Dual Tone Squelch System) • Pager function • Auto-power off • Time-out timer • Multi-scan function • Programmable call • Programmable VFO • Offset and repeater reverse switches • Multi-function backlit DTMF microphone supplied • 13.8V DC @ <6A • 5.5"w x 1.5"h x 6.3"d, 2.4 lbs..... **$449.99**

*Available Accessories:*
**KQT8** CTCSS decoder, **MB201** Mobile bracket, **PG2N** DC cable, **SP50B** External mobile speaker

**Look For This NEW & Check Out AES' Latest Additions.**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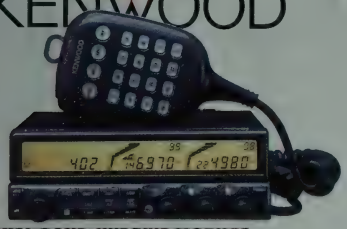
# KENWOOD



## DUAL BAND UHF/VHF MOBILES

High performance mobiles that receive three bands simultaneously (with optional band unit) with triple display. Available detachable front panel and wireless remote control functions (external DTMF signal) add versatility. • Selectable frequency step • Built-in DTSS selective calling with page • 101 memories/memory bank system • Flexible scan and scan stop modes • Tone alert with elapsed time indicator • Triple repeater functions • S-meter squelch • Separate antenna and speaker terminals, squelch and volume control per band • Automatic band change • Sub-band muting • Date/time display, stopwatch, alarm • On/Off and time-out timers • 13.8V DC @ <11A • 5.9"w x 1.5"h x 6.8"d, 3.3 lbs.

**TM-642AD** 2M/220MHz *(pictured)* 144-148MHz transmit/118-174MHz receive and 222-225MHz transmit/215-235MHz receive • 50/10W (2m); 25/10W (220MHz)..... **$739.99**

**TM-742AD** 2M/440MHz 144-148MHz tx/118-174MHz rx and 438-450MHz tx/410-438MHz rx • 50/10W (2m); 35/10W (440MHz) • Looks like TM-642AD except frequency display ..... **$639.99**

*Available Accessories:*
**DFK3** 9' separation display cable kit, **DFK4** 13' remote cable kit, **DFK7** Deluxe 22' remote kit, **MJ88** Modular/8-pin adapter, **PG2N** DC cable, **SP50B** External mobile spkr, **TSU7** CTCSS decoder unit, **UT1200** 10W 1.2GHz unit, **UT220S** 25W 220MHz unit (for TM-742AD only), **UT440S** 35W 440MHz unit (for TM-642AD only), **UT50S** 50W 6M unit

**TM-G707A** 144/440MHz FM Dual Band Extraordinarily user-friendly with extra-large detachable control panel. 144-148, 430-450MHz transmit; 118-174, 410-524MHz receive • 50/10/5W (VHF); 35/10/5W (UHF) • Detachable control panel with high-visibility amber LCD display • 180 multi-function alphanumeric memories • Multi-scan functions • Priority scan function • Built-in CCTSS encoder and decoder • 1200/9600bps packet ready • Cross band repeater access • Selectable frequency step • S-meter squelch • Time-out timer • Dimmer control • Auto power-off • Multi-function backlit microphone with DTMF • 13.8VDC @ 11A • 5.5"w x 1.5"h x 7.4"d, 2.7 lbs..... **$269.99**

*Available Accessories:*
**DFK3C** 9' cable kit, **DFK4C** 13' cable kit, **DFK7C** Deluxe 23' remote kit, **MB201** Mobile bracket, **MJ88** Modular/8-pin adapter, **PG2N** DC cable, **PG4S** PC interface cable, **PG5A** Packet data cable, **SP50B** External mobile speaker, **VS3** Voice synthesizer

**TM-D700A** 144/440MHz Dual Band Data Communicator Fully equipped to complement SSTV, GPS and APRS®. 144-148, 430-450MHz transmit • 118-148, 136-175, 300-524, 800-1300MHz wide band receive (cell blocked) • 50/10/5W (VHF); 35/10/5W (UHF) • Detached control panel with extra-large backlit LCD and multi-function key display • Backlit microphone with alphanumeric input • Easy-to-use menu system • Advanced APRS-99 features • Built-in 1200/ 9600 bps TNC (AX.25) • DX cluster monitoring • Dual receive on same band for voice and data • 200 alphanumeric memories • 2 call channels • 10 programmable memory scan banks • Built-in CTCSS and 1750 tone burst • Digital Code Squelch (DCS) • DTMF memory • Cross band and fixed band repeater operation • DCS code scan, tone, CTCSS scan • 10-channel program scan • Visual band scope • 13.8VDC @ 11.5A • 5.5"w x 2.4"h x 1.2"d, 0.4 lbs. (control), 5.5"w x 1.2"h x 7"d, 2.6 lbs. (main)..... **$519.99**

*Available Accessories:*
**MB201** Mobile bracket, **MJ88** Modular/8-pin adapter, **PG2N** DC cable, **PG4X** 13' extension cable kit, **PG5A** Packet data cable, **SP50B** External mobile spkr, **VS3** Voice synthesizer

**TM-V7A** 144/440MHz FM Dual Bander Easy-to-operate control panel with dual-mode, cool-blue, reversible LCD, offering positive and negative displays. Use with a PC, GPS, packet TNC or operate APRS position reporting and message system locally or nationally. Transmit: 144-148, 430-450MHz; receive: 118-174, 410-470MHz • 50/10/5W (VHF); 35/10/5W (UHF) • Data connector and separate automatic digital channel for APRS® • Detachable control panel • Dual receive on same band • Up to 280 multi-function memory channels (180 with 7-character alphanumerics) • Multi-scan functions • DTSS selective calling with page function • Built-in CTCSS enc/decoder • 1200/9600bps packet ready • Friendly operating menu • Automatic band change • Selectable frequency steps • S-meter squelch • Time-out timer • Audible frequency ID • Auto repeater offset (144MHz) • Auto power-off • Backlit multi-function mic with DTMF • 13.8VDC @ 10A • 5.5"w x 1.5"h x 7.4"d, 2.7 lbs .... **$399.99**

*Available Accessories:*
**DFK3C** 9' cable kit, **DFK4C** 13' cable kit, **DFK7C** Deluxe 23' remote kit, **MB201** Mobile bracket, **MJ88** Modular/8-pin adapter, **PG2N** DC cable, **PG4S** PC interface cable, **PG5A** Packet data cable, **SP50B** External mobile speaker, **VS3** Voice synthesizer

# MFJ ENTERPRISES, INC.

## LOW POWER SINGLE BAND SSB MOBILE TRANSCEIVERS

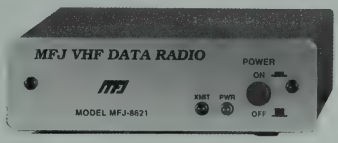
Easy to operate, no microprocessor – turn on and tune in. • 20W PEP (Less on VHF models) – plus Constant Current™ syllabic speech processing for an added 4–6dB advantage to cut through noise • Includes handheld dynamic microphone • 3A from 12V supply or battery • Low noise preamp and active double balanced mixer front end • Sharp 2.3kHz SSB crystal ladder filter reduces passband noise and fights QRM • TVI protection • Real S-meter • Agile tuning – reduction drive analog VFO – scan band quickly, zero in smoothly • Amp jack • 2.5"h x 6.5"w x 6"d, 2 lbs.

**9402X** 2M SSB Adventure Radio™, 7W.. **$269.99**

**9406X** 6M SSB Adventure Radio™, 10W **$249.99**

**9410X** 10M 20W Adventure Radio™..... **$239.99**

*Available Accessories:*
**1770A** 10M dipole for 9410X, **4110** Portable AC power supply, **4114** Rechargable power pack, **416** CW adapter, **971** 200W HF tuner (9410X only)




## VHF DATA RADIOS

Don't tie up your expensive rig on a single packet channel, check out these low-cost MFJ Data Radios.

**8621** PacketOnly™ 2m Transceiver Compatible with all TNCs with hardware DCDs and most TNCs with software DCDs • 1200/9600 baud • 5W output • Low current drain (15mA on receive and less than 1 amp on transmit) • 5"w x 5"d x 1.5"h • Crystals installed for 145.01MHz ..... **$139.99**

**8621X2** PacketOnly™ 2m Transceiver Ready for APRS use. • Crystalled and aligned for 144.390MHz • 5W output ..... **$149.99**

*Available Accessories:*
**4110** Portable AC power supply, **5100** Data radio cable (MFJ/TAPR), **5100YH** Data radio cable (KPC9612), **5100YV** Data radio cable (KAM/KPC3), **5106** Open end (6-pin mini Kenwood/Yaesu)

**FREE ITEMS included with some radios. See Price Guide for details.**

# Real Performance for the Real World!

**Today's elite-class operators demand the best RF weaponry available. Yaesu's exciting new MARK-V FT-1000MP answers the call, with an expanded array of receiver filtering, 200 Watts of power output, and Class-A SSB operation capability for the cleanest signal on the band. Enhanced front-panel ergonomics on the front panel save you seconds in a pile-up or a contest "run," and Yaesu's HF design and manufacturing know-how ensures that no short-cuts have been taken in our effort to bring you the best HF transceiver money can buy. For more QSOs in your log, and more awards on your wall, there is only one choice: the MARK-V FT-1000MP from Yaesu!**

**I. Interlocked Digital Bandwidth Tracking System (IDBT)**

**II. Variable RF Front-End Filter (VRF)**

**III. 200 Watts of Transmitter Power Output**

**IV. Class-A SSB Operation**

**V. Multi-Function Shuttle Jog Tuning/ Control Ring**

## Features

■Frequency Coverage: (RX) 100 kHz-30 MHz; (TX)160-10 m Amateur Bands ■Dual In-band Receive w/Separate "S" Meters ■Ten Pole Collins® Mechanical Filter Built-in ■RX DSP Noise Reduction and CW Peaking Filter ■High-speed Automatic Antenna Tuner ■Two TX/RX Antenna Jacks plus RX-only Jack ■TX Microphone Equalizer ■RF Speech Processor ■Direct Digital Synthesis ■CW Spot and Two Key Jacks ■Two Headphone Jacks (1/4" and 3.5 mm) ■Low-Level Transverter RF Drive Jack ■Separate FP-29 Power Supply (30 V/13.8 V DC Output)

HF 200 W All-Mode Transceiver

**MARK-V FT-1000MP**

## For Elite-Class Amateur Radio Operators...

**A NEW BREAKTHROUGH IN TRANSMITTED AUDIO QUALITY: THE YAESU MD-200A8X HIGH-FIDELITY DESKTOP MICROPHONE.**

- New-Technology Polyethylene Terephthalate Film High-Fidelity Dynamic Microphone Element
- Vibration-Resistant Housing
- VSPC (Variable Side Pressure Control) Technique (Patent Pending)
- Ease of Operation through Ergonomic Design
- Provision for User-Supplied Additional Microphone Element

VSPC (Variable Side Pressure Control)

**APPLICABLE TRANSCEIVERS**

MARK-V FT-1000MP, FT-1000MP, FT-1000/-1000D*, FT-990*, FT-920, FT-900, FT-847, FT-840*, FT-817

* The FT-1000/-1000D/-990/-840 do not support the illumination of the TX LED during transmission.

Ultra-High-Fidelity Desktop Microphone

**MD-200A8X**

## Expand Your DX Horizons With The FTV-1000 50 MHz Transverter!

- 50 MHz Transverter with 200 W PEP Power Output
- Class-A Bias Selection for Low TX IMD (PO: 50 W)
- High-Performance Receiver Front End
- Automatic, Effortless Operation with MARK-V FT-1000MP
- Upgrade to High Power with VL-1000 Linear Amplifier

**Specifications**

| | |
|---|---|
| Frequency Range: | 50-54 MHz |
| Antenna Impedance: | 50 Ohms |
| Power Output: | 200 Watts PEP |
| Spurious Emissions: | At least 60 dB down |
| Power Source: | DC 30 V and 13.8 V (supplied by FP-29 Power Supply of MARK-V) |
| Dimensions: | 9.6" x 5.4" x 13" WHD (243.5 x 136.5 x 331 mm) |

200 W 50 MHz Transverter

**FTV-1000**

YAESU
*Choice of the World's top DX'ers™*

Vertex Standard
US Headquarters
10900 Walker Street
Cypress, CA 90630 (714)827-7600

For the latest Yaesu news, visit us on the Internet:
http://www.vxstdusa.com

Specifications subject to change without notice. Some accessories and/or options may be standard in certain areas. Frequency coverage may differ in some countries. Check with your local Yaesu Dealer for specific details.

# The Ultimate in Dual Band Mobile Operating Ease!

**The exciting YAESU FT-8800R Dual Band Mobile is the rig you've asked for, and it's available now! With a powerful 50 Watts of 2-meter power output (70 cm: 35 W), wide receive coverage, 800+ memory channels with 10 memory groups, independent two-channel operation (V/V, U/U, V/U), optional remote-head mounting kit, and cross-band repeater capability, the FT-8800R is packed with the features you demand, at a price you'll enjoy. And its superb ergonomics and creative firmware design make the FT-8800R the easiest Dual Bander to operate while driving!**

## 144/430 MHz DUAL BAND

**ACTUAL SIZE**
*Simulated LCD display

# FT-8800R

**144/430 MHz FM DUAL BAND TRANSCEIVER**

YAESU

Vertex Standard
US Headquarters
10900 Walker Street
Cypress, CA 90630 (714)827-7600

For the latest Yaesu news, visit us on the Internet:
http://www.vxstdusa.com

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# NO COOLING FAN
# COOL AND QUIET 65 W OPERATION

**Yaesu's FT-2800M, the most ruggedly-built 2-meter amateur transceiver ever, provides 65 Watts of power along with Yaesu's renowned bullet-proof receiver front end. Direct keypad frequency entry, Alpha-Numeric Memory System, the high power output, and unsurpassed ergonomics make the FT-2800M an operator's dream come true!**

High power output, a huge, easy-to-read display, and one-touch WIRES™ Internet Linking Access capability are yours with the exciting new FT-2800M.

On transmit, the 65 Watts of true FM power output provides you with excellent coverage and superb voice clarity. On receive, you get extended coverage of 134-174 MHz, with a special memory bank dedicated to the NOAA Weather Broadcast Channels (U.S. version only).

Built to the exacting requirements of both the commercial radio industry, as well as the U.S. military's MIL-STD 810, the FT-2800M is constructed using an aluminum diecast chassis/heatsink assembly, providing outstanding mechanical and thermal stability for the internal components.

With superb ergonomics to go along with its stout RF design, the FT-2800M is ready for action, at home or away!

## New Ultra-High-Dissipation Heat Sink Design

The all-new heat sink of the FT-2800M provides more effective cooling than any other design, allowing long transmission periods without dangerous heat build-up or power reduction due to thermal protection.

HEAVY-DUTY VHF FM TRANSCEIVER

## FT-2800M

ACTUAL SIZE

For the latest Yaesu news, visit us on the Internet:
http://www.vxstdusa.com

Specifications subject to change without notice. Some accessories and/or options may be standard in certain areas. Frequency coverage may differ in some countries. Check with your local Yaesu Dealer for specific details. Specifications guaranteed only in 2-meter Amateur band.

YAESU

Vertex Standard
US Headquarters
10900 Walker Street
Cypress, CA 90630 (714)827-7600

# HF EXCITEMENT

# INTRODUCING YAESU'S ALL NEW HF MOBILE

**Blending leading-edge technologies developed on the FT-897 and MARK-VFT-1000MP transceivers, the FT-857 is the world's smallest* HF/VHF/UHF Multimode Transceiver, and it's available now!**

*Jan. 2003

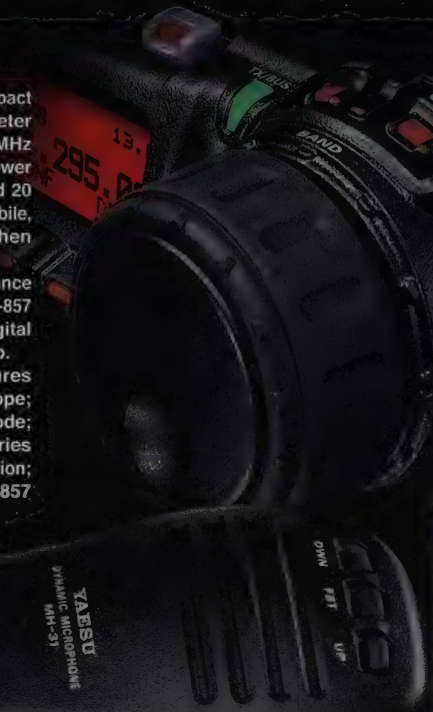
## FT-857 DESIGN HIGHLIGHTS

The FT-857 is a high-performance, ultra-compact transceiver operating on the 160-10 meter HF bands, plus the 50, 144, and 430 MHz VHF/UHF bands. Providing 100 Watts of power on HF/6 meters, 50 Watts on 2 meters, and 20 Watts on 70 cm, the FT-857 is ideal for mobile, vacation, DX-pedition, or home use when space is at a premium.

Utilizing the renowned receiver performance of the FT-897 and MARK-VFT-1000MP, the FT-857 features wide dynamic range, optional Digital Signal Processing, and outstanding audio.

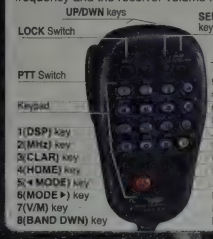
The wide array of convenience features includes a 32-color display; Spectrum Scope; built-in keyer with memory and beacon mode; U.S. Weather Band reception; 200 memories with Alpha-Numeric labels; AM Aircraft reception; detachable front panel (optional YSK-857 required); and much, much more.

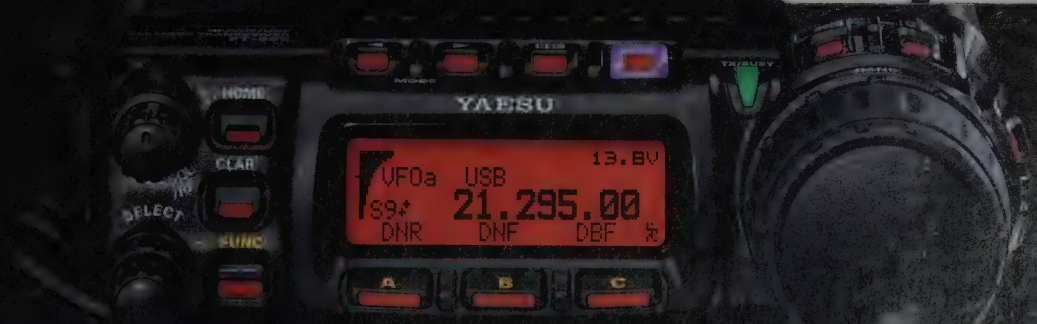
You've asked for it, and it's here today: the FT-857 New Mobile. . .from the engineers at Yaesu!




**New Remote Control**
**DTMF Microphone MH-59A8J (Option)**

The optional MH-59A8J Remote Microphone provides control of the major functions of the FT-857 from the microphone's keypad. The MH-59A8J includes a rotary control knob for adjusting the operating frequency and the receiver volume level.




Actual Size

# HF EXCITEMENT

# FT-857

**ULTRA-COMPACT HF/VHF/UHF 100 W* ALL-MODE TRANSCEIVER**
(HF/6 m 100 W, 2 m 50 W, 70 cm 20 W)

**For the latest Yaesu news, visit us on the Internet: http://www.vxstdusa.com**

Specifications subject to change without notice. Some accessories and/or options may be standard in certain areas. Frequency coverage may differ in some countries. Check with your local Yaesu Dealer for specific details.

YAESU

Vertex Standard
US Headquarters
10900 Walker Street
Cypress, CA 90630 (714) 827-7600

RANGER Communications, Inc.

## SINGLE BAND 6M MOBILE

**RCI-5054DX** All-Mode 6M Transceiver Covers 50-54MHz • 10W CW/AM/FM, 25W PEP SSB • 10 programmable memory frequencies • Programmable repeater offset (splits of up to 2MHz) • ± 2.5kHz receiver clarifier • Noise blanker/ANL circuitry • Programmable receiver scanning for quick search of active frequencies • Includes Up/Down tuning hand microphone • 12V DC • Public address feature • 2.4"h x 7.75"w x 10.75"d ..... **$269.99**

## DUAL BAND MOBILES

**RCI-2950DX** 10/12M Transceiver An old favorite updated with 12M, improved receiver, double FET balanced mixer, surface mount components and improved display lighting. Covers 24.8-24.99, 28-29.7MHz • 25W (SSB), 12W (CW), 10W (AM/FM) • Dual VFO • RIT • Noise blanker • Standard repeater offsets • Programmable tone • Scanning • 10 programmable frequencies • Lockout..... **$269.99**

**RCI-2970DX** Higher power version. 150W (SSB PEP), 50W (CW/FM/AM) ..... **$399.99**

YAESU

## SINGLE BAND MOBILES

**FT-1500M** 2M FM Transceiver Transmit: 144-148MHz, receive: 134-174MHz • 10 NOAA weather channels with "Weather Search" • 50/25/10/5W • Alphanumeric channel display • 130 multi-function memories with 6-character, alphanumeric labels • SmartSearch™ automatic memory loading • Priority channel • 16-digit, 8 memory DTMF autodialer • 50-tone CTCSS enc/decode • Bell alert CTCSS paging • Auto repeater shift • 1200/9600 baud compatible, rear panel data jack • Time-out timer • Auto power off • DTMF direct access mic • MIL-STD 810 D/E • DC voltage display • 13.8V DC @ 9.5A • 5"w x 1.4"h x 4.9"d, 2.2 lbs..... **$159.99**

*Available Accessories:*
ADMS2F Programming software, CT39 Packet cable, MLS100 Mobile speaker, RA0242900 Mobile bracket, SP4 Mobile speaker, T9021810 DC cable

**FT-2800M** 2M FM Transceiver Cool, quiet, and ruggedly-built; utilizes a new ultra-high dissipation heat sink design that eliminates the need for a cooling fan. • 65/25/10/5W (memory storable) • Direct keypad frequency entry with a backlit mic that includes a 9-memory, 16-digit, DTMF autodialer and 4 user-programmable "soft" keys • Advanced track tuning RF input filtering • Huge alphanumeric channel display • Ergonomic, impact-resistant, MIL spec design (MIL-STD 810) • CTCSS encode/decode and SmartSearch™ auto memory loading • Versatile scanning features a choice of scanning-resume option along with a "preferential" list • WX channels with "Severe Weather" alert (10 weather memories) • WIRES™ internet linking access • 6.3"w x 2.0"h x 7.3"d, 4 lbs..... **$159.99**

*Available Accessories:*
MLS100 Mobile speaker, SP4 Mobile speaker

## MULTI BAND MOBILES

**FT-90R** 2M/440MHz FM Transceiver Micro-sized with built-in cooling fan • TX: (2M) 144-148MHz; (440MHz) 430-450MHz • Wideband rx: 100-230, 300-530, 810-999.975MHz (cell blocked), includes AM aircraft • 50/20/10/5W (2M), 35/20/10/5W (440 MHz) • 186 memories with alphanumeric labels • 5 scanning modes • Built-in CTCSS/DCS enc/dec • ARTS™ • 1200/9600bps compatible • Auto repeater shift • Time-out-timer • Ultra-compact remote-head capability • DTMF direct access mic with user-programmable keys • 8-memory, 16-digit DTMF autodialer • Memory cloning • 13.8V DC @ 9.5A • 3.9"w x 1.2"h x 5.4"d, 1.42 lbs ..... **$369.99**

*Available Accessories:*
ADMS2E Programming software, MLS100 Mobile speaker, RA0131900 Mobile bracket, SP4 Mobile speaker, T9021810 DC cable, YSK90 Remote separation kit

**Look For This NEW & Check Out AES' Latest Additions.**

**FT-8800R** Dualband FM Mobile Transceiver With easy operation, outstanding receiver performance, and crossband repeat capability, the 8800R is the new standard of comparison! • 144-148, 430-450MHz transmit • 108-520, 700-999 (cell blocked) wide frequency coverage (keep informed in the public safety, commercial, aircraft, and government ranges) • Independent 2-channel operation – dual receive with one band as the main TX/RX band • Separate volume and squelch controls for each band • Ability to configure 8800R for VHF-VHF or UHF-UHF operation• 50W on 144MHz, 35W on 430MHz • Over 1000 memory channels, 512 "regular" on each band, five "Home," ten sets of band-edge memories on each band, and six "Hyper Memories" (complete sets of transceiver configurations) • Large, easy-to-read OmniGlow™ LCD with 4 illumination levels • Cross-band repeat capability • One-touch band pattern • CTCSS/DCS (50/104 tone) • User-programmable mic keys • Convenient remote-head mounting capability (optional separation kit required) • 5.5"w x 1.6"h x 6.6"d, 2.2 lbs • $25 Factory Rebate thru 12/31/03..... **$399.99**

**FT-8900R** Quad Band FM Mobile National or world-wide FM communications from a vehicle! • 28-29.7, 50-54, 144-146, 430-440MHz tx • 28-29.7, 50-54, 108-180, 320-480 and 700-985MHz (cell blocked) wide frequency receive • 50W (10/6/2M), 35W (430MHz) high power output • FM satellite operation • Over 800 memories • DTMF auto-dial memory • One-touch band-pattern "Hyper-Memory," allows set up and storage of complete transceiver configuration settings. Saves button pushing! • CTCSS/DCS encode/decode • SmartSearch™ auto memory loading • Cross band repeat • Independent, 2-channel, dual receive and full duplex (separate volume and squelch controls, as well as S-meters) • Built-in duplexer • WIRES™ compatible • RF squelch • Auto repeater shift • ARTS™ capable • User-programmable microphone keys • Easy set up for FM satellite operation • Battery voltage meter • Time-out timer • Automatic power off • Large, easy-to-read LCD display • 1200/9600 bps packet • Thermal-sensored cooling fan • Remote head mounting capability • Looks similar to FT-8800R • 5.5"w x 1.6"h x 6.6"d, 2.2 lbs **$439.99**

*Available Accessories:*
ADMS2H Programming software (8900R), CT39 Packet cable, MLS100 Mobile speaker, MMB60 Quick release mobile mount (8800R), MMB62 Remote control panel bracket (8900R), MMB66 Quick release mobile mounting bracket (8900R), SP4 Mobile speaker, T9021810 DC cable, YSK8900 Remote separation kit

Secure
www.aesham.com

**FREE ITEMS included with some radios. See Price Guide for details.**

## SINGLE BAND MOBILE TRANSCEIVERS

| Manufacturer | ADI | ADI | ADI | ALINCO | ALINCO | ALINCO | ALINCO | ICOM | ICOM | KENWOOD | KENWOOD | KENWOOD | KENWOOD | MFJ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Model | AR-147+ | AR-247 | AR-447 | DR-M06TH | DR-135TMKII, TP, TPMKII | DR-235T | DR-435T, MKII | IC-2100H-25N | IC-V8000 | TM-261A | TM-331A | TM-461A | TM-541A | 8621 |
| TX Range (MHz) | 144-148 | 222-225 | 430-450 | 50-54 | 144-148 | 222-224.995 | 430-449.995 | 144-148 | 144-148 | 144-148 | 222-225 | 438-450 | 1240-1300 | 145.01 |
| Rx Range (MHz)(3) | 118-171 | 216-229 | 400-470 | 40-60(11) | 118-174 | 216-279.995 | 350-511.995 | 136-174 | 136-174 | 118-174 | 222-225 | 400-470 | 1240-1300 | 145.01 |
| Aircraft Rx | Yes | N/A | N/A | N/A | Yes | No | No | No | No | No | No | Yes | No | No |
| Power Output | 60/15/5W | 30/15/5W | 35/10/5W | 20/1W | 50/10/5W | 25/10/5W | 35/10/5W | 50/10/5W | 75/25/10/5W | 50/10/5W | 25/10/5W | 35/10/5W | 10W | 5W |
| TTP Microphone | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No |
| Tone Encode | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes/DCS | Yes | Yes | Yes | Yes | No |
| Tone Decode | Yes/DCS | Yes/DCS | Yes/DCS | EJ-20U | Yes | Yes | Yes | Yes | Yes/DCS | TSU-8 | KQT-8 | TSU-8 | KQT-8 | No |
| Memories | 80 | 80 | 80 | 100 | 100 | 100 | 100 | 113 | 207 | 62 | 20 | 62 | 20 | 0 |
| Alphanumeric | No | No | No | No | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | No | No |
| PC Programmable | Yes | Yes | Yes | N/A | No | No | No | Yes | Yes | No | No | No | No | No |
| 13.8V DC@ | 12A | 8A | 10A | 5A | 11A | 8A | 10A | 12A | 15A | 11A | 6.5A | 10A | 6A | >1A |
| Antenna Conn | SO-239 | SO-239 | SO-239 | SO-239 | SO-239 | SO-239 | SO-239 | SO-239 | SO-239 | SO-239 | SO-239 | SO-239 | Type-N | SO-239 |
| Size (h/w/d, in.) | 1.5/5.5/6.5 | 1.5/5.5/6.3 | 1.5/5.5/6.3 | 1.6/5.5/4.5 | 1.6/5.6/6.9 | 1.6/5.6/6.9 | 1.6/5.6/6.9 | 1.6/5.5/7.1 | 2.0/5.9/5.9 | 1.6/5.5/6.3 | 1.7/5.5/6.6 | 1.7/5.5/6.6 | 1.6/5.5/6.3 | 1.5/5/5 |
| Weight (lbs.) | 2.65 | 2.65 | 2.65 | 1.5 | 2.3 | 2.3 | 2.3 | 2.5 | 2.22 | 2.2 | 2.65 | 2.2 | 2.4 | 0.8 |

| Manufacturer | MFJ | MFJ | MFJ | MFJ | RANGER | YAESU | YAESU |
|---|---|---|---|---|---|---|---|
| Model | 8621X2 | 9402X | 9406X | 9410X | RCI-5054DX | FT-1500M | FT-2800M |
| TX Range (MHz) | 144.39 | 144-144.3 | 50-50.3 | 28.3-28.6 | 50-54 | 144-148 | 144-148 |
| Rx Range (MHz)(3) | 144.39 | 144-144.3 | 50-50.3 | 28.3-28.6 | 50-54 | 137-174 | 137-174 |
| Aircraft Rx | No | No | No | No | No | No | No |
| Power Output | 5W | 7W SSB | 10W SSB | 20W SSB | 10/25W | 50/25/10/5W | 65/25/10/5W |
| TTP Microphone | No | No | No | No | No | Yes | Yes |
| Tone Encode | No | No | No | No | No | Yes | Yes |
| Tone Decode | No | No | No | No | No | Yes | Yes/DCS |
| Memories | 0 | 0 | 0 | 0 | 10 | 130 | 221 |
| Alphanumeric | No | No | No | No | No | Yes | Yes |
| PC Programmable | No | No | No | No | No | Yes | No |
| 13.8V DC@ | >1A | 2A | 3A | 3A | 7A | 8A | 10A |
| Antenna Conn | SO-239 | SO-239 | SO-239 | SO-239 | SO-239 | SO-239 | SO-239 |
| Size (h/w/d, in.) | 1.5/5/5 | 2.5/6.5/6 | 2.5/6.5/6 | 2.5/6.5/6 | 2.4/7.75/10.75 | 1.4/5/5 | 2/6.3/7.3 |
| Weight (lbs.) | 0.8 | 2 | 2 | 2 | 1 | 2.2 | 4 |

* Remotable control head
(1) Requires keyboard modification
(2) Expanded memory requires optional EJ-19U
(3) 2 Piece configuration only
(4) 2M/220MHz Transceiver
(5) All models are Cellular Blocked
(6) AM aircraft receive mode
(7) Does not include projections (knobs, antenna jacks, etc.)
(8) Manufactuer only guarantees specs within the ham bands
(9) Requires internal modification (available on request)
(10) There are gaps in non-voice or data portions in certain bands
(11) Control head separate from body
(12) FT-8900R includes 10M/6M as well
**All radios are cell blocked**

**FREE ITEMS included with some radios. See Price Guide for details.**

## MULTI BAND MOBILE TRANSCEIVERS

| Manufacturer | ALINCO | ALINCO | ICOM | ICOM* | KENWOOD(11) | KENWOOD* | KENWOOD* | KENWOOD | KENWOOD* | RANGER | RANGER | YAESU | YAESU | YAESU* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Model | DR-605TQ | DR-620T | IC-208H | IC-2720H | TM-D700A | TM-G707A | TM-V7A | TM-642AD(4) | TM-742AD | RCI-2950DX | RCI-2970DX | FT-8800R | FT-8900R | FT-90R |
| Tx Range(5,8) | 144-148<br>430-450 | 144-148<br>430-450 | 144-148<br>440-450 | 144-148<br>430-450 | 144-148<br>438-450 | 144-148<br>438-450 | 144-148<br>438-450 | 144-148<br>220-225 | 144-148<br>438-450 | 24.8-24.99<br>28-29.6999 | 24.8-24.99<br>28-29.6999 | 144-148<br>430-450 | 28-29.7,50-54<br>144-148<br>430-450 | 144-148<br>430-450 |
| Rx Range (MHz)(5,8) | 136-174<br>420-470 | 87.5-108 (WFM)<br>108-174<br>335-480 | 118-174(6)<br>230-550<br>810-999 | 118-550 (left)<br>118-174, 375-550<br>810-999 (right) | 118-470 (A band)(10)<br>136-175, 300-524<br>800-1300 (B band)(10) | 118-174<br>410-524(6) | 118-174<br>410-470(6) | 118-174<br>213-235(6) | 118-174<br>410-470(6) | 24.8-24.99<br>28-29.6999 | 24.8-24.99<br>28-29.6999 | 108-520<br>700-999 | 28-29.7,50-54<br>108-180<br>320-480, 700-985 | 100-230<br>300-530<br>810-1000 |
| Single or Dual Rx | Dual | Dual | Single | Dual | Dual | Single | Dual | Dual | Dual | Single | Single | Dual | Dual | Single |
| Power (2M)(2)<br>Power (440MHz) | 50/5W<br>35/5W | 50/35/10/5W<br>35/10/5W | 55/15/5W<br>50/15/5W | 50/20/5W<br>35/20/5W | 50/10/5W<br>35/10/5W | 50/10/5W<br>35/10/5W | 50/10/5W<br>35/10/5W | 50/10/5W<br>25/10/5W | 50/10/5W<br>35/10/5W | 25W SSB<br>10W CW/FM/AM | 150W SSB<br>50W CW/FM/AM | 50/20/10/5W<br>35/20/10/5W | 50W(12)<br>35W | 50/20/10/5W<br>35/20/10W |
| Memories | 100 | 200 | 500 | 212 | 200 | 180 | 280 | 101 | 101 | 10 | 10 | 1000+ | 800 | 186 |
| Tone Encode | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes |
| Tone Decode | Yes | DCS | Yes | DCS | Yes | Yes | Yes | Opt. TSU-7 | Opt. TSU-7 | No | No | DCS | DCS | DCS |
| Duplexer | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | No | No | No | Yes | Yes | Yes |
| Cross-Band Rpt. | Yes | No | No | Yes | Yes | No | Yes | Yes(9) | Yes(9) | No | No | Yes | Yes | No |
| Alphanumeric | No | Yes | Yes | No | Yes | Yes | Yes | No | No | No | No | Yes | Yes | Yes |
| PC Programmable | No | Yes | Yes | Yes | Yes | Yes | Yes | No | No | No | No | TBA | Yes | Yes |
| 9600b Compatible | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes(9) | Yes(9) | No | No | Yes | Yes | Yes |
| Separateable | No | Yes | Yes | Yes | Yes(3) | Yes | Yes | Yes | Yes | No | No | Yes | Yes | Yes |
| Height (in.) (Head)<br>Width (in.)<br>Depth (in)(7)<br>Weight (lbs) | 1.6<br>5.5<br>6.9<br>2.4 | 5.51<br>1.57<br>7.28<br>2.2 | 1.6<br>5.6<br>7.3<br>2.7 | 1.6 (2)<br>5.5 (5.5)<br>7.4 (1.1)<br>3 (5.3) | 1.6 (2.4)<br>5.5 (5.5)<br>7.7 (1.3)<br>2.6 (6.3) | 1.6<br>5.5<br>7.4<br>2.7 | 1.6<br>5.5<br>7.4<br>2.7 | 1.9<br>5.9<br>6.9<br>3.9 | 1.9<br>5.9<br>6.9<br>3.9 | 2.375<br>7.75<br>10.75<br>4.2 | 3.875<br>7.75<br>9.25<br>7.4 | 1.6<br>5.5<br>6.6<br>2.2 | 1.6<br>5.5<br>6.6<br>2.2 | 1.2<br>3.9<br>5.4<br>1.4 |

## POWER SUPPLIES

• 105–125V AC input, 13.8V DC output; internally adjustable from 11–15V • Electronic regulation with fold-back current limiting and crowbar overvoltage protection • Heavy-duty heat sink • 3-wire cord • 1-year warranty • Made in U.S.A.

Separate volt and amp meters on RS-20M, 35M, 50M and 70M. Separate volt and amp meters, plus voltage adjustment (2–15V DC) on VS-20ML, VS-35M and VS-50M. RM-35M, RM-50M and RM-60M are rack mount models, plus separate meters.

| Model | Cont. Amps | ICS Amps | Size (in.) H W D | Shipping weight | Price |
|---|---|---|---|---|---|
| RS-7A | 5 | 7 | 3.75 x 6.5 x 9 | 9 | $59.99 |
| RS-10A | 7.5 | 10 | 4 x 7.5 x 10.75 | 11 | 69.99 |
| RS-12A | 9 | 12 | 4.5 x 8 x 10.75 | 13 | 79.99 |
| RS-20A | 16 | 20 | 5 x 9 x 10.5 | 18 | 99.99 |
| RS-35A | 25 | 35 | 5 x 11 x 11 | 27 | 149.99 |
| RS-35A/220V | Same as RS-35A but 220V input | | | | 169.99 |
| RS-50A | 37 | 50 | 6 x 13.75 x 12 | 46 | 219.99 |
| RS-70A | 57 | 70 | 6 x 13.75 x 12 | 48 | 259.99 |
| With separate Volt & Amp meters | | | | | |
| RS-20M | 16 | 20 | 5 x 9 x 10.5 | 18 | 119.99 |
| RS-35M | 25 | 35 | 5 x 11 x 11 | 27 | 169.99 |
| RS-50M | 37 | 50 | 6 x 13.75 x 11 | 46 | 239.99 |
| RS-70M | 57 | 70 | 6 x 13.75 x 12 | 48 | 289.99 |
| Adjustable output; separate Volt & Amp meters | | | | | |
| VS-20ML | 16 | 20 | 5 x 9 x 10.5 | 20 | 139.99 |
| VS-35M | 25 | 35 | 5 x 11 x 11 | 29 | 189.99 |
| VS-50M | 37 | 50 | 6 x 13.75 x 11 | 46 | 259.99 |
| Rack mount models; separate Volt & Amp meters | | | | | |
| RM-35M | 25 | 35 | 5.25 x 19 x 12 | 38 | 249.99 |
| RM-50M | 37 | 50 | 5.25 x 19 x 12 | 50 | 279.99 |
| RM-60M | 50 | 55 | 7 x 19 x 12 | 60 | 359.99 |

## POWER SUPPLIES WITH ADDED FEATURES

**RS-4L** Has a built-in cigarette lighter receptacle in the front panel. 13VDC @ 4A peak, 3 Amps continuous. 3.5"h x 6.5"w x 4.25"d, 6 lbs ..... **$49.99**

**RS-12S** With built-in speaker. Rated 13VDC @ 12A peak, 9A contin. 4.5"h x 8"w x 9"d, 13 lbs **$89.99**

## SWITCHING POWER SUPPLIES

**SS-25** 12V DC, rated 20A continuous, 25A ICS. 3"h x 7"w x 9.5"d, 4.2 lbs..... **$109.99**

**SS-25M** Same as above with volt and amp meters **$129.99**

**SS-30** 12V DC, rated 25 amps continuous, 30 amps ICS, 3.75"h x 7"w x 9.5"d, 4.5 lbs..... **$119.99**

**SS-30M** Same with volt/amp meters..... **$139.99**

## POWER INVERTERS

**12/115 General Purpose** Converts 12V DC to 115VAC @ 60Hz. Provides convenient, mobile, AC house current (boat, car, truck, etc.). Powers a ham rig, small household appliance, TV, tools and lights up to 200W continuous (peaks up to 240W, overload protected). Produces square wave output, not recommended for devices where high transients are not tolerable. 4.5"h x 8"w x 9"d, 9 lbs C/O **$49.99**

**N2412-12** 28V **Aircraft** Converts 22–32V DC input to 13.8V DC output @ 10 amps. Eliminates tapping into a 28V battery for 12V power **$49.99**

**N2412-24** Same as above, rated at 20A .. **$79.99**

## SMALL POWER SUPPLIES

**38-384 Light-duty DC Supply** *(pictured)* Input: 115 V AC • Output: 13.8V DC regulated @ 4A • Front panel binding posts • LED indicator, fuse protection • 7.75"d x 4.75"w x 3"h, 5.5 lbs **$39.99**

**38-305 AC Adapter** Provides multiple low-voltage DC to operate various battery powered equipment requiring 3, 4.5, 6, 7.5, 9 or 12V DC with a max. current rating of 500ma. Multiple application plugs and 9V snaps fit most devices ..... **$9.99**

**38-312 Regulated AC Adapter** Multi-voltage with multiple plugs and 9V snaps. Selectable 1.5, 3, 4.5, 6, 7.5, 9 or 12V DC regulated with a maximum current rating of 1200ma. to operate a wide range of battery operated devices..... **$29.99**

**GZV-4000 Switching Mode DC Power Supply with Built-in Speaker** 120V AC input • Variable output: 5–15V DC with center detent at 13.5V DC • 40 amps continuous rating, 100% duty cycle • Over temperature, overload, short-circuit protection with current foldback at approximately 42 amps • Overload indicator • Selectable monitoring of voltage and current • DC terminals on rear • Cigarette lighter jack on front • Filtered AC line • 8.25" x 13" x 4.5", 8 lbs ..... **$179.99**

**3362U Power Cost Controller** Provides monitoring of electricity consumption. Approximately 3W to 1800 W range, ideal for use with a large variety of 120VAC 60Hz (15A) appliances. • Cost monitoring and forecasting • Instantaneous power consumption (Watts) • Maximum load power (maximum Watts) • Total kWh consumption • Includes LR-44 button cell ..... **$29.99**

**RS-204U Remote Control Outlet System** Control multiple outlets by remote control. Units plug into existing outlet to turn on/off lamps, tools, appliances, etc. – up to 20A. Operates up to 80', even through walls. Includes remote and 2 outlets. Uses 2 AAA batteries (not included)..... **$29.99**

**SEC-1223 Low Cost, Base Station Power Supply for HF, UHF & VHF Transceivers** Switching mode design • 23 Amp rating • Current limiting • Short circuit protection • Overvoltage protection • Anodized black chassis and powder coat wrinkle black steel cover • Input: 110-120VAC, 200-240VAC • 4.9A input current • 13.8VDC output voltage • 23 Amps output current (24 Amps maximum) • 3-year waranty • 7.2" x 8.7" x 2.2", 3.3 lbs..... **$99.99**

## COMPACT INVERTERS

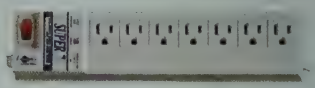
**PowerVerter® Ultra** These low cost, DC-AC inverters provide access to AC power anywhere. Harnessing auto, boat, RV or service truck 12V power through a cigarette lighter, they run power tools at remote work sites, household appliances at a campsite, or office equipment on the road by converting battery to AC power. • Electronic circuit protection • Low battery alarm and shutdown • Illuminated on/off switch

**PV-140** 140W maximum continuous power and 200W surge capacity • AC receptacle • 6"l x 3"w x 1.5"d, 1 lb. 4 oz ..... Closeout **$39.99**

**PV-150** 150W maximum continuous power • One outlet • 1.65"h x 3.6"w x 5.5"d, 1 lbs..... **$42.99**

**PV-300** 300W maximum continuous power and 500W surge capacity • Modified sine wave • 2 AC receptacles • 6"l x 4"w x 1.75"d, 2 lbs C/O **$59.99**

**PV-375** 375W maximum continuous power • 2 outlets • 1.75"h x 4.5"w x 6"d, 2.4 lbs ..... **$65.99**



## SURGE SUPPRESSORS

**SUPER-7** For spike suppression and noise filtering, 18,000 amp surge suppression, and RFI/ EMI filtering. Seven outlets, 7-foot cord, three diagnostic LED indicators ..... **$19.99**

**SUPER-7+TEL** Same as above with 6 outlets and fax/modem protection for modular jacks.. **$29.99**

**ISOBAR-8 ULTRA Premium Surge Protector** Rugged all metal housing – won't break or burn • Isolated filter banks to eliminate interference between connected equipment • Massive 1,200 joule, 96,000 amp spike supression • Diagnostic alarm system indicates wiring faults, protection circuitry and power line status • 8 outlets, extra long 12' cord..... **$79.99**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# MFJ Switching Power Supplies

***Power your HF transceiver, 6 meter/2 meter/440 MHz Mobile/Base and accessories with these 25 or 45 Amp MFJ MightyLite™ Switching Power Supplies!***

***No RF hash . . . Super lightweight . . . Super small . . . Volt/Amp Meters . . .***

**4125**

**4225MV**

**4245MV**

***Small* & Lightweight** – *MightyLites™* are so light and small you can carry them in the palm of your hand! Take them with you anywhere – no more hauling around heavy, bulky supplies.

**Lightweight** – The 25A *MightyLite™* only weighs 3.7 pounds – *5 times lighter* than an equivalent conventional power supply. And, the 45A model weighs just 5.5 pounds!

**No RF hash** – Some switching power supplies generate objectionable RF hash in your transmitted and received signal. But, these babies are clean!

**Low Ripple and Highly Regulated** – Less than 35 mV peak-to-peak ripple and better than 1.5% regulation under full load.

**Fully Protected** – You won't burn up these power supplies! They are fully protected with overvoltage and overcurrent protection circuits.

**Worldwide Versatility** – Switchable AC input voltage for 85-135 or 170-260VAC.

**Mighty Features** – Model **4225MV** and **4245MV** feature a front-panel voltage control which varies output voltage from 9 to 15VDC. Front-panel mounted 5-way Heavy Duty binding posts and cigarette lighter socket for mobile accessories. The **4245MV** has two sets of quick-connects on the rear for accessories. Dual three inch illuminated meters monitor load voltage and current. Internal fan.

**Three models to choose from . . .**

**4125 (left)** Basic, no metering. 25A maximum or 22A continuous. Size: 5-1/2 x 2-1/2 x 2-1/2 inches, 3.5 pounds ..... **$99.99**

**4225MV (center)** 25A max. or 22A continuous. Size: 5-3/4 x 4-1/2 x 6 in., 3.7 lbs ..... **$139.99**

**4245MV (right)** 45A max. or 40A continuous. Size: 7-1/2 x 4-3/4 x 9 in., 5.5 lbs ..... **$189.99**

**4103 Miniature Switching Power Supply** – Delivers up to 40W (13.8 VDC @ 2.89A), RFI and Hash FREE. Only 4-1/8 x 2-5/8 x 1-3/8 in., weighs 10 oz. Ideal for the FT-817 and other QRP rigs. Input: 100-240 VAC @ 47–63 Hz. Over voltage, over current, and over temperature protected. Includes a DC output cable with a 2.1mm x 5.5mm plug that fits most MFJ, other ham accessories and QRP rigs. Adapter cable for the Yaesu FT-817 is included ..... **$39.99**

# MFJ 35/30 Amp Adjustable Regulated DC Power Supply

## Massive 19.2 pound transformer . . . No RF hash . . . Adjustable 1 to 14 VDC . . .

**Super Heavy Duty** – This conventional power supply is excellent for powering all types of amateur transceivers and accessories. A massive 19.2 pound transformer allows this power supply to easily deliver 35A maximum and 30A continuous. It's highly regulated with load regulation better than 1% and ripple voltage less than 30 mV.

**Fully protected** – Over voltage, fold back and short circuit protection. A whisper quiet fan keeps components cool by increasing speed as load increases.

**Adjustable Voltage** – Front panel control allows adjustment from 1 to 14 VDC with a convenient detent set at 13.8V. Dual front-panel meters monitor voltage and current.

**Versatile** – There are three sets of output terminals including a pair of Heavy Duty, 5-way binding posts for transceivers, two pairs of quick-connects for accessories and a cigarette lighter socket for mobile accessories.

**Size** – 9-1/2 x 6 x 9-3/4 inches, 20.6 lbs.

***MFJ's No Matter What™***
**One Year limited Warranty**

**MFJ will repair or replace (at MFJ's option) these products for 1 year.**

**4035MV $139.99**

# MFJ High Current Multiple DC Power Outlets

## Distribute power to transceivers and 6 or more accessories from your 12 VDC power supply

**1118 Deluxe Multiple DC Power Outlet** – The most versatile and highest current rating. Connect to a 12VDC source and distribute power to 2 transceivers and 6 or more accessories. Features 2 pairs of Super Heavy Duty 30A, 5-way binding posts, fused RF bypassed and rated 35A total draw. And, 6 pairs of 5-way binding posts for accessories rated for 15A total draw. Master fuse, On-Off switch with power LED. Built-in 0-25 VDC voltmeter, 6 ft. of 8-gauge, color-coded cable with ring tongue terminals. Binding posts are spaced for standard dual banana plugs. Size: 12.5" x 2.75" x 2.5" ..... **$74.99**

**1116** Similar to the 1118 but does not have 30A posts. Has "Power On" LED and 0-25 VDC voltmeter. Rated at 15A total draw ..... **$49.99**

**1117** Similar to the 1118 but no meter, power LED or On-Off switch. Powers up to 4 radios at the same time. Two 35A single posts and one 35A dual post. Size: 8 x 2 x 3 in., fits almost anywhere .... **$54.99**

**1112** Similar to the 1116 but no On-Off switch, power LED, voltmeter or fuse ..... **$34.99**

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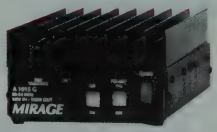
# MIRAGE Power Amplifiers

## Boost Mobile, Base or Handheld Power!

*All Modes: FM, SSB, CW . . . Superb GaAs FET preamplifier in G Models*
*Overdrive, high SWR, Over-temperature protection . . . Remote controllable*

### 2 Meters All Mode 160W • 200W 300W



**B-5018G** 160W output with 50W input. Requires 17 to 24 amps @ 13.8VDC. Low Noise GaAsFET Preamplifier. 5-1/2"w x 3"h x 12"d..... **$299.99**

| Power Curve – typical for the B-5018-G | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| IN | 0.5 | 5 | 8 | 10 | 15 | 20 | 25 | 35 | 50 |
| OUT | --- | 52 | 99 | 119 | 125 | 130 | 135 | 145 | 160 |

**B-2518G** 160W output with 25W input. Low noise GaAs FET preamplifier. Requires 17 to 24 Amps @ 13.8VDC. 5-1/2"w x 3"h x 12"d.. **$299.99**

| Power Curve – typical for the B-2518-G | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| IN | 0.5 | 5 | 8 | 10 | 15 | 20 | 25 | --- | --- |
| OUT | 5 | 56 | 91 | 111 | 135 | 153 | 160 | --- | --- |

**B-1018G** 160W output with 10W input. Low noise GaAsFET preamplier. Requires 17 to 24 Amps @ 13.8VDC. 5-1/2"w x 3"h x 12"d..... **$369.99**

| Power Curve – typical for the B-1018G | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| IN | 0.5 | 5 | 8 | 10 | --- | --- | --- | --- | --- |
| OUT | 30 | 150 | 155 | 160 | --- | --- | --- | --- | --- |

**B-2530G** 300W output with 25W input. Low noise GaAsFET preamplier. Requires 48 amps @ 13.8VDC. Size: 12"w x 5"h x 12"d..... **$689.99**

| Power Curve – typical for the B-2530G | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| IN | 1 | 3 | 5 | 10 | 25 | --- | --- | --- | --- |
| OUT | 30 | 95 | 140 | 250 | 300 | --- | --- | --- | --- |

**B-5030G** 300W output with 50W input. Low noise GaAsFET preamplier. Requires 48 amps @ 13.8VDC. Size: 12"w x 5"h x 12"d..... **$669.99**

| Power Curve – typical for the B-5030G | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| IN | 1 | 3 | 5 | 10 | 25 | 50 | --- | --- | --- |
| OUT | --- | --- | 55 | 150 | 220 | 300 | --- | --- | --- |

**B-320G** Up to 200W output. Low power input for Handheld Radios 250mW to 10W. High power input for mobile radios, 10W to 50W. Low noise GaAS FET preamplifier. ..... **$429.99**

### 35W/100W for your HT

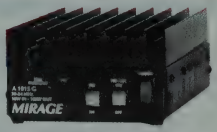
**B-34G** (left/bottom) Boosts 2M HTs with up to 8W output to 35W+ output. SSB/FM. GaAsFET preamp and mobile bracket. 13.8 VDC @ 4A..... **$89.99**

**B-34** (left/top) Like B-34G but FM only, no preamp or mobile bracket. 3-1/8" x 1-3/4" x 4-1/4".. **$69.99**

**B-310G** (right) Boosts 0.25 to 8W 2M Handhelds to 25 to 100W+ output. Includes preamp, mobile mounting bracket & BNC to amp patch cable. 13.8 VDC @15A. 4-3/4"w x 1-3/4"h x 7-1/4"d. **$179.99**

| Power Curve – typical for the B-310G | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| IN | .25 | 0.5 | 1 | 2 | 4 | 6 | 7 | 8 | --- |
| OUT | 25 | 50 | 75 | 95 | 100 | 100 | 100+ | 100+ | --- |

### 6 Meters All Mode 150W



**A-1015G** Covers 50 to 52MHz and provides 150W output with 10W input; FM/SSB/CW. Built-in Low Noise GaAsFET receive preamplifier, internal T/R switching and remote keying. 13.8 VDC @ 18-23 Amps. 5-1/2"w x 3"h x 12"d., 5 lbs ..... **$349.99**

### 2M/440 Dual Band 35/45W

**BD-35** For DUAL-BAND HTs with up to 7W output. Produces up to 45W output on 2M and 35W on 440 MHz. Automatic band selection, full duplex operation. Single connector for dual band radios and antennas. 12-15 VDC @ 7A. Size: 5"w x 1-3/4"h x 5"d. Mobile bracket included..... **$149.99**

| Power Curves – typical BD-35 output power | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Watts Out (2M) | 30 | 40 | 45 | 45+ | 45+ | 45+ | 45+ | 45+ |
| Watts Out (440 MHz) | 16 | 26 | 32 | 35+ | 35+ | 35+ | 35+ | 35+ |
| Watts In | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

### REMOTE CONTROL HEADS

**RC-1** – Allows remote control of Mirage amplifier functions: Power and pre-amp On-Off, FM/SSB mode select. Only 1.75" x 3.75" x 2.5". Comes with 18 ft. head to amplifier control cable. ..... **$45.99**

**RC-2** for B-XX18G series amplifiers..... **$45.99**

### More MIRAGE amps...

**including models for 220MHz, 430-440MHz. Also, continuous duty Repeater Amplifiers for 6, 2, 1-1/4 meters, 70 cm, 450 MHz & ATV.**

*See the Price Guide under MIRAGE*

### Low Noise GaAsFET Receive Preamps

• Improves weak signal reception • <0.8dB noise figure • 15–22dB gain with selectable level prevents receiver overload and intermodulation • Automatic TR switching up to 100W thru put • Rugged die-cast enclosures • In-Shack or Mast-Mount models

**In-Shack Models – $129.99 ea.**

**KP-1/6M** 50-54MHz **KP-1/2M** 144-148MHz
**KP-1/440** 430-450MHz
**KP-1/10M** for 28-30MHz – Closeout **$119.99**
**KP-1/220** 220-225MHz – Closeout **$119.99**

**Mast Mount Models – $179.99 ea.**

**KP-2/6M** for 50-54MHz **KP-2/2M** 144-148MHz
**KP-2/440** 430-450MHz
**KP-2/10M** 28-30MHz – Closeout **$129.99**
**KP-2/220** 220-225MHz – Closeout **$139.99**

### MFJ DC Power for your MIRAGE Amplifier

**4035MV** Heavy Duty - the transformer alone weighs 19.2 lbs! Voltage front panel adjustable 0–15 Volts. Dual meters show Volts and Amps. Rated 30A continuous, and 35A peak. Fully regulated and fully overload protected. 110 VAC..... **$139.99**

## VECTRONICS

*. . . fine amateur radio products*

### Versatile 300W Antenna Tuner

**VC-300DLP** Match any antenna • Full 1.8-30 MHz coverage • Rated 300W PEP, 200W continuous; 150W on 1.8 MHz • Continuous rotation capacitors and 12-position switched inductor • Peak reading backlit Cross-Needle Meter • Built-in 8-position antenna switch and dummy load 10-1/4"w x 9-1/2"d x 3-1/2"h, 3.4 lbs .... **$149.99**

### High Power Roller Inductor Tuner

**HFT-1500** Match any antenna Full 1.8-30MHz coverage • Rated 2KW PEP, 1KW continuous • Three continuously variable components: two 4.5kV capacitors and a crank driven a roller inductor with digital counter • Lighted Cross-Needle SWR/Wattmeter and 20-segment Digital Bargraph • Built-in 6-position coax switch and 4:1 balun • 5-1/2"h x 12-1/2"w x 12"d, 10 lbs..... **$399.99**

*More Vectronics Amateur Products*

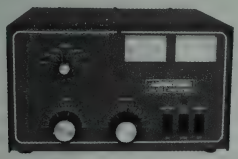
**AT-100** Tuned active SWL antenna..... **$79.99**
**DL-300M** 300W dry dummy load..... **$44.99**
**DL-650M** 1500W dry dummy load..... **$74.99**
**DL-2500** 2500W dry dummy load ..... **$179.99**
**VC-300M** 300W mobile tuner..... **$99.99**
**VC-300D** 300W tuner w/digital bargraph.. **$179.99**
**HPF-1** 75/300Ω high pass TVI filter..... **$24.99**
**HPF-2** Dlx. 75/300Ω high pass TVI filter .. **$29.99**
**PM-30HF** 1.8-60 MHz SWR/wattmeter..... **$79.99**
**PM-30UV** 144/220/440MHz SWR/wattmeter. **$89.99**
**LP-30** 1500W low pass filter ..... **$69.99**
**LP-2500** 2500W low pass filter ..... **$129.99**

*See the Price Guide for a list of Vectronics Kits*

# AMERITRON

## 811A Amplifiers

- Cover 160-15M, including WARC/MARS bands
  *User Modifiable for 10/12M with proper license*
- All Modes
- HD silicon steel core Plate Transformer (17 lbs.)
- Tuned Input • ALC Control • Quiet Air Cooling
- Dual Meters show Plate Voltage, Grid and Plate Current • Vernier Reduction tuning
- Comes wired for 120V Operation
- Size: 15.5"d x 13-3/4"w 8.25"h, 52 lbs.



**AL-811** – Uses (3) 811A transmitting tubes. Delivers 600W PEP output SSB and 500W CW..... **$599.99**

**AL-811H** – Uses (4) 811A transmitting tubes. Delivers 800W PEP SSB or 600W CW .....**$749.99**

## 3-500Z Amplifier

- Covers 160-15M, including WARC bands.
  *User modifiable for 10/12M with proper license*
- HD silicone steel core Plate Transformer (26 lb) and Computer Grade capacitors
- A Full KW PEP! (70% efficiency)
- Tuned Input • Adjustable ALC • Air Cooled
- Dual Cross-needle meters show SWR, Refl. PEP power, Plate voltage, Grid and Plate current
- Operates from 90-140 VAC or 205-250 VAC
- Size: 15-1/2"d x 14-1/2"w x 18-1/2"h, 48 lbs.

**AL-80B** – Uses a single 3-500Z transmitting tube. Delivers 1000W PEP output SSB and 850W CW. The high-voltage secondary can be wired to reduce plate voltage for efficient operation below 400W for use outside the USA .....**$1199.99**

## Solid State Mobile Amplifier

**ALS-500M** – Uses (4) 2SC2879 RF power transistors. The ideal amplifier to increase your HF mobile up to 500 Watts. Continuous coverage 1.5–22 MHz* with instant bandswitching, no tuning, no warm-up and SWR protected. Runs nicely from 13.8 VDC mobile electrical system, draws 75A peak current. Size: 3-1/2 x 9 x 15 inches, 5-1/2 lbs. ..... **$699.99**

## Solid State Base Amplifier

**ALS-600** – No tuning, no fuss, no worries – just turn it on and operate. Continuous coverage 1.5-22MHz*, instant bandswitching, SWR and over power protected. Full 600W output, includes AC power supply. Extremely quiet, very compact. Amplifier and power supply both 6" x 9-1/2 x 12 inches, 30 lbs., total. ..... **$1129.99**

**Modification kit (MOD-10M) for 10/12M operation is available direct from Ameritron*

www.mfjenterprises.com

## 3CX-800A7 Amplifiers

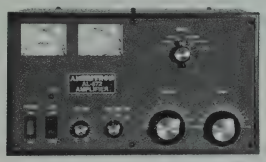
- Cover 160-15M, including WARC bands.
  *User Modifiable for 10/12M with proper license*
- HD silicon steel core Plate Transformer (32 lb.)
- Tuned Input • ALC Control • Air Cooled
- Dual illuminated Cross-Needle meters show SWR, Plate voltage, Grid and Plate current
- Operates on 90-140 VAC, 200-250 VAC
- Size: 8-1/2"h x 16-1/2"w x 13-3/4"d, 52 lbs.

**AL-800** – Uses as a single *Eimac*® 3CX800A7 tube. Delivers 1250W PEP SSB output.....**$1629.99**

**AL-800H** Uses (2) *Eimac*® 3CX800A7 tubes. Delivers 1500W PEP SSB output.....**$2399.99**

## 572B Amplifier

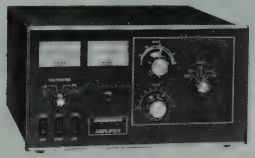
- Covers 160-15M, including WARC bands
  *User modifiable for 10/12M with proper license*
- Heavy Duty silicone steel core Plate Transformer
- Instant 3 second warm up
- Tuned Input • ALC Control • Air Cooled
- Dual illuminated Cross-needle meters show SWR, Plate voltage, Grid and Plate current
- Multi-voltage Operation
- Size: 8-1/2"h x 15-1/2"w x 14-1/2"d, 40 lbs



**AL-572** This *Near Legal Limit*™ amplifier uses (4) rugged 572B tubes. Delivers 1300W PEP SSB and 1000W CW continuous output for about 65% of the price a full legal limit amplifier..... **$1299.99**

## Super Legal Limit Amplifiers

- Cover 160-15M, including WARC bands.
  *User modifiable for 10/12M with license*
- Strong Stainless Steel Chassis
- Highly efficient *PeterDahl* tape wound Hypersil® Plate Transformer, capable of 2500W
- Grid and Plate meters show drive, ALC, Power output and PEP Watts
- Size: 18"h x 17"w x 10"d, approx. 77 lbs.



**AL-1500** – Uses a single *Eimac*® 8877 Ceramic tube. Only 65W of drive power delivers full legal 1500W CW output. Time-delayed start protects the tube and over-current shut-off removes the drive if amplifier is mistuned..... **$2599.99**

**AL-1200** – Uses Ham radio's toughest tube, the *Eimac*® 3CX1200A7. It has a 50W control grid dissipation and can deliver more than 2500W two-tone output for a half hour ..... **$2199.99**

**AL-82** – Uses a pair of 3-500Z tubes. Delivers 1500W output which is more than other 3-500Z linears because their lighter weight power supplies can't use these tubes to their full potential ..... **$2099.99**

We accept I.M.P.A.C.® Government Credit Cards

ATP-100 ADL-2500 ADL-1500 QSK-5 ICP-120/240 ATR-30

### ACCESSORIES

**ATP-100**
**Tuning Pulser** – Safely tune up RF power amplifiers. Prevents overheating, tube damage, power supply stress and component failure ..... **$49.99**

**ADL-2500**
**Dry Dummy load** – Rated 2500W average power for 1 minute on, 10 minutes off, 300W continous. Air cooled, low VSWR up to 60MHz..... **$189.99**

**ADL-1500**
**Oil Filled Dummy Load** – Handles 1500W for 5 minutes. Usable with low VSWR up to 400 MHz. Includes oil and container as pictured ..... **$69.99**

**QSK-5**
**Pin diode T/R Switch** – Faster than a vacuum relay. Connects externally to HF RF power amplifiers. Handles 2.5 kW PEP, 2 KW CW ..... **$329.99**

**ICP-120/240**
**In-rush Current Protector** – Stops power-up in-rush current surge and absorbs momentary voltage spikes. ICP-120 for 110-120V; ICP-240 for 220-240V ..... each **$79.99**

**ATR-30**
**1500W Antenna Tuner** – Tune nearly any antenna system 1.8–30MHz. Rugged, heavy duty components, edge wound, silver-plated roller inductor. Cross-needle meter..... **$549.99**

**RCS-8V**
**Remote Coax Switch** – Selects one of five outputs using one feedline and 6-wire control cable. Rated 1KW @ 150MHz, usable to 250 MHz **$139.99**

**RCS-4**
**Remote Coax Switch** – Selects one of four outputs by supplying control voltages thru the coaxial cable Rated 1500W from 1.8 to 30MHz.. **$129.99**

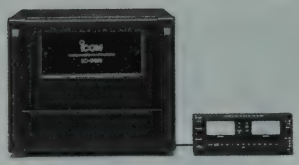
ARB-704 RCS-4

**ARB-704**
**Interface Buffer** – Prevents damage to radio's internal relay contacts resulting from keying amplifiers with too much control voltage, excessive current or voltage spikes on the relay control line. Compatible with transceivers that provide a ground on transmit. Interface cables optional, requires 12VDC **$49.99**

**ARB-704I2** for IC-706 only ... **$49.99**

**AWM-30**
SWR/Wattmeter – Uses a Cross-needle meter that reads Peak or Average on 300W/3KW ranges up to 30MHz..... **$139.99**

# ICOM



**PW-1 HF + 50MHz Solid State Linear Amplifier** Frequency range: 160-15m, 6m • Power output with 220V input: 1000 PEP SSB, 1000W CW/RTTY (100% duty cycle, QSK) • 100W drive • Built-in all band automatic antenna tuner • Automatic AC voltage selector and band change • Current, voltage, temperature, SWR, output power protectors • Wide range adjustable ALC allows use with almost any rig • Control head may be detached from main unit (shown) • Built-in 110/220VAC supply • 14"w x 10.5"h x 14.5"d, 56 lbs..... **$4699.99**

# YAESU

**QUADRA SYSTEM HF/50MHz Solid-State Amp** Frequency range: 160-15m, 6m • 1000W (6m: 500W) • 100W drive • 4 twin MOSFET PA modules • Dot matrix multi-function LCD • 2 input and 4 output jacks for easy connection to station antenna • Built-in high-speed auto antenna tuner • Panoramic SWR display shows "before tuning" and "after tuning" SWR data • SWR protection • Auto band switching with FT-1000, FT-1000MP, FT-1000MP MK V, MK V FIELD, and FT-920 • 117VAC for 500W; 220V AC for 1000W • 6.25" x 5.375" x 16.25", 59 lbs. **$4499.99**

# SGC

**SG-500 (52-96) SmartPower Cube™** Fully automatic band switching, microprocessor-controlled, HF linear amplifier. Ideal for fixed, mobile, and marine operation. Nearly indestructible! Cast-aluminum enclosure, extra heavy duty heat sinks, powder coat finish and durable electronic components. Microprocessor auto adjusts amp input sensitivity, monitors all parameters for faults (heat, VSWR, undervoltage, etc.) and auto selects the correct broadband filter. Operates unattended! • 1.6–24MHz • 500W PEP with 50-90W input • CW rating: 500W output for 10 min., or unlimited with optional fan • 10–18 VDC @ 40A average (SSB), 90A peak, or CW • 6"h x 12.25"d x 11.4"w, 21 lbs ..... **$1249.99**

# MIRAGE

## VHF/UHF AMPLIFIERS

15 to 300 watts of brute power! Models for 6M–70 cm, base, mobile, repeater or ATV operation • 12V DC • FM (SSB/CW on some models) • 20dB gain GaAsFET preamplifier • Overdrive and high temperature protection • Remote control capability

| Model | MHz | Max Input | Max Output | Amps | Pre-amp | Price |
|---|---|---|---|---|---|---|
| A-1015G | 50-52 | 1-15W | 150W | 23 | yes | $349.99 |
| B-34 | 144-148 | 8W | 35W | 4 | no | 69.99 |
| B-34G | 144-148 | 8W | 35W | 4 | yes | 89.99 |
| B-1018G | 144-148 | 0.2-15W | 160W | 25 | yes | 369.99 |
| B-2518G | 144-148 | 20-35W | 160W | 25 | yes | 299.99 |
| B-2530G | 144-148 | 10-35W | 300W | 48 | yes | 689.99 |
| B-5018G | 144-148 | 20-60W | 160W | 22 | yes | 299.99 |
| B-5030G | 144-148 | 0.5-50W | 300W | 48 | yes | 669.99 |
| B-310G | 144-148 | 0.25-8W | 100W | 15 | yes | 179.99 |
| B-320G | 144-148 | 2.5-50W | 200W | 25 | yes | 429.99 |
| BD-35 | 144/440 | 1-7W | 45/35W | 7 | no | 149.99 |
| C-22G | 222-225 | 2W | 20W | 5 | yes | 154.99 |
| C-211G | 222-225 | 2W | 110W | 20 | yes | 329.99 |
| C-1012G | 222-225 | 10W | 120W | 25 | yes | 329.99 |
| C-1022G | 222-225 | 10W | 220W | 20* | yes | 689.99 |
| C-2512G | 222-225 | 30W | 120W | 25 | yes | 309.99 |
| D-15N | 425-450 | 2W | 15W | 3 | no | 169.99 |
| D-26N | 430-450 | 2W | 60W | 12 | no | 259.99 |
| D-1010N | 430-450 | 10W | 100W | 15 | no | 379.99 |
| D-3010N | 430-450 | 30W | 100W | 20 | no | 349.99 |
| D-1010ATVN | 430ATV | 10W | 100W | 20 | no | 399.99 |

N = Type-N connectors * at 28VDC

**RC-1 Remote Control Head** For most Mirage amps. Power/preamp On/Off, SSB/FM mode switch. 18" cable. 1.25h" x 3.75"w x 2.25"d ..... **$45.99**

**RC-2 Remote Control Head** Same as the RC-1 but works only with the Mirage B1018G, B2518G and B5018G amplifiers ..... **$45.99**

## DOCKING BOOSTERS

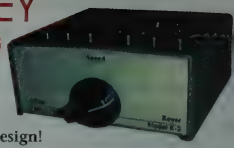
Slide an HT in and it instantly becomes a mobile or base! Selectable voltages allow use of most HTs. Place on dashboard or desk, or use mounting bracket for security and conveniece with tilt. Boost mobile or base station levels, up to 50W. • Replace HT battery • Requires 13.8 VDC

**B-24-G For 2m FM Handhelds** Up to 50W output with 0.5–8W input • 18dB GaAsFET preamp with on/off switch • LEDs show preamp on, on air, and transmit • 4.25"h x 3.35"w x 3.25"d • HT adapters available, see Price Guide..... **$109.99**

**BD-25 For 2M/440MHz FM HTs** Up to 45W (2M) & 35W (440MHz) with 0.5-8W input • Full duplex feature lets you simultaneously talk on one band and listen on another with a compatible HT • Auto band selection • LEDs show band and power-on • Reverse polarity protection • 5.25"h x 3.25"w x 3.35"d • HT adapters available, see Price Guide..... **$164.99**

# LOGIKEY

## IDIOM Press



**Full featured version of the famous Super CMOS III keyer design!**

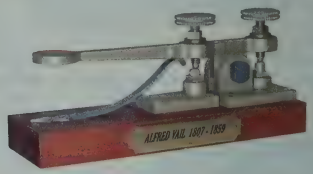
**K-3** Non-volatile memory • 6 editable messages, 1,530 characters • Messages can include programmed functions like automatic contest numbers and speed changes • Message can allow paddle inserted text & loop for continuous replay • Linear speed control (5-60 WPM) • Adjustable weighting and monitor tone • Tune function • Auto character spacing if desired • Can emulate others, including Curtis "A" timing • Ultra Speed mode for messages up to 99 WPM • Contest serial numbers 001-9999, with push button decrement • Beacon capability • Full compensation for QSK rig timing • Keys solid-state or grid-blocked tube rigs • 12V DC, < 0.1 amp • 4.25"w x 2.25"h x 4.75"d..... **$129.99**

**HK-3 Hook-up kit for the K3** Includes Paddle-to-Keyer cordset; RCA-to-RCA keyer output cable and 2.5 mm DC power plug cordset for 12V.... **$10.99**

# ALPHA DELTA

**Designed and produced by R.A. Kent Engineers, for Alpha Delta.** Feature rugged, machined, polished, solid brass components contained within permanent brass housings. Provide delicate, smooth feel and free movement with minimum friction and side play. Silver contacts with precise gap alignments are easily and precisely adjusted with instrument knurled heads on fine pitched screws and secured with locking nuts. Non-slip feet, and weighted for stability. Mounted on steel bases.

**SK-1** *(top)* Straight Morse Key..... **$129.99**
**SP-1** *(left)* Single Paddle Morse Key ..... **$139.99**
**TP-1** *(right)* Twin Iambic Morse Paddle .. **$149.99**




**VK-1 The "Vail Lever Correspondent" Key** This replica key is a faithful reproduction, accurate to the type of hardware used during the mid-1800s, of the first full mechanism telegraph hand key made for Samuel F.B. Morse by Alfred Vail in 1844. Each component of the key is hand crafted and tooled in Kent's machine shop. Each key is individually serialized. *A Collectable!* ..... **$198.99**


Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

MFJ ENTERPRISES, INC.

## FOR LEARNING/PRACTICING CODE

**414 Professional Classroom Tutor** Features include LCD readout, printer port and audio tape recording output. Build and save 3 custom sets for extra practice. Or combine these to obtain 48 characters for using the KOCH method. Customize random words for practice. Use with 144/440MHz FM HT or HF transceiver for on-air code practice. VECs can give up to 16 exams. Full-featured memory keyer (1000 character memory, semi/auto modes, iambic A/B, reverse paddle, change speed and tone on-the-fly). Practice sending into the 414 with iambic paddle or straight key. Use built-in or external speaker or headphones. Includes serial port cable and open-end patch cable. 12 VDC or 110 VAC. 8.5"w x 2.25"h x 6"d ..... **$189.99**

**554 Code Practice Oscillator** Designed for classroom use with great sound that enhances learning of Morse code. Plenty of volume from a built-in 1W amp and 3" speaker. Volume control and adjustable tone control (400-1000Hz). On/off switch, power ON LED, 1/4" key jack, 3.5mm external speaker jack and DC input jack. Requires 12V DC. All-metal enclosure. 4.25" x 1.5"h x 5"d ..... **$79.99**

**550** Telegraph Key..... **$7.99**

## AIDED CW SENDING/RECEIVING

**452 Super CW Keyboard** *(left)* A stand alone CW keyboard that includes an RFI suppressed keyboard, a two line 16-character non-volatile LCD display. Send effortless CW by just typing the characters as you see what you are sending on the display. No computer to boot up, no program to load. • Speed: 5–100WPM • Weight: 5–95% • Sidetone: 300–3000 Hz sidetone • Serial Numbers (0–9999) • Has buffer and memory full audible indicators. Keys solid-state and tube-type rigs. Requires 12VDC..... **$129.99**

**462B MultiReader™** *(right)* Supply this unit with audio from a receiver or transceiver; tune in CW, RTTY, ASCII or AMTOR (FEC) signals; and read the auto decoded text directly from the 2-line, LCD display. • Copy most standard shifts and speeds in all modes • *AutoTrak™* feature helps track and decode high speed CW • 8K memory stores several pages • PLL modem technology digs out weak signals • Precision tuning indicator • Printer port • 6.25"w x 2.5"h x 6.25"d • Requires 12VDC..... **$169.99**

**461 Pocket-Size Morse Code Reader™** No cables to hook-up and no other equipment needed. Simply hold the unit near your receiver and it instantly displays CW text in English! Automatic speed tracking and instant 140-character replay on a 32-character LCD. If desired, a serial port lets you display CW text on a monitor using a computer and terminal program. Connect directly to a receiver with optional cable when it's too noisy or CW is unwanted. • Battery saver (uses 9V – not included) • 2.25"h x 3.25"w x 1"d, 5.5 oz..... **$79.99**

**5162 Receiver Cable** Connects the 461 to a radio's external 3.5mm jack ..... **$5.99**

**464 CW Reader With Built-In Keyer** This unit simply plugs into a transceiver's speaker/phone jack and key jack. Add a single or iambic paddle or computer keyboard and it's ready for easy, complete CW operation. Sends and reads CW at 5 to 99 WPM with automatic speed tracking. • Easy menu operation • Large 2-line LCD shows "send and receive" text • Front panel speed and volume controls • 4 message memories • Type-ahead and read-again buffers • Adjustable weight and sidetone • Built-in speaker • RFI proof..... **$169.99**

## KEYERS

**407D Deluxe Electronic Keyer** Features dot-dash mem., self completing dots and dashes; jam-proof spacing. RF proof, instant start. Single squeeze, or straight key. Front panel controls: speed, weight, tone & volume, ON/OFF, tune, auto or semi-automatic. Selectable A or B-type iambic keying. Built-in speaker, uses 9V battery. 7"w x 2"h x 6"d .. **$69.99**

**401D Econo Electronic Keyer II** Similar to 407D with external speed and volume controls, internal weight and tune controls. Uses 9V battery **$49.99**

**434 Contest Voice Keyer™** Microprocessor-controlled, transformer-coupled – No RFI, hum or feedback. Automatically call CQ and send a call. Store frequently used phrases, like *"CQ. Contest this is AA5MT,"* in your own voice. Record and play back five natural sounding messages totaling 75 seconds. Repeat messages continuously and vary the delay from 3–500 seconds. Receive and play back off-the-air signals. Easy to use – plug in an 8-pin microphone cable then plug the 434 shielded cable into the mic input. Controls tailor audio level to match your voice. Built-in speaker and audio amplifier. Uses 9V battery, 9-15VDC or AC with optional adapter. 6.5"w x 2.5"h x 6.5"d ..... **$169.99**

**422D Keyer-Paddle Combo** Keyer unit installs on top of Bencher iambic paddle. Uses Curtis™ chip. 9 to 50 wpm. Adjustable weight and tone, dot-dash memory and sidetone. Semi-automatic and tune or auto modes. Keys grid block, cathode or solid state. Uses 9V battery or AC adapter. 4.125"x2.625"x5.5"d **$159.99**

**422DX** Keyer only ..... **$79.99**

**490 Keyer/Bencher Paddle Combo** A feature-rich keyer in a compact configuration that fits right on its own Bencher iambic paddle. Provides memories, morse trainer, sidetone, automatic serial numbering and more. 5"w x 3"h x 5.5"d. Uses 9-volt battery or 110 VAC with MFJ-1312D..... **$189.99**

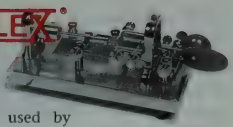
**492 Menu Driven Memory Keyer** No complex sequences. Save messages, enter iambic, semi-auto, handkey, message queue, paddle modes. Select iambic A/B, Morse trainer, store starting serial numbers. Holds 192 characters in 4 memories (expand able to 8K+ characters in 8 memories. Front panel speed (5–100 WPM) and volume control for sidetone speaker. Direct and grid block keying. 9V battery or 110V AC adapter. 6.5" x 2.5" x 6.25" **$89.99**

**451 Morse Keyboard** Stand-alone CW keyboard with 200 character type-ahead buffer, and two 100 character messages. Requires 12VDC..... **$99.99**

**452 Morse Keyboard** with 16 character LCD display. Comes with keyboard ..... **$129.99**

**495 Millennium CW Keyer** A powerful keyer combining the latest microprocessor technology with non-volitile memory. Easy-to-use menus and LCD display – send CW, load messages and set functions using a paddle, keyboard or serial port. Iambic mode works with direct or grid-block outputs. • PTT output, built-in speaker, sidetone • Iambic keyer with dot and dash memories • 32 message memories • Repeat message continuously • Insert timed pauses, auto-incrementing serial number, or embedded commands to change speed, weight, etc. • Message editing capability • Input queue to store multiple messages • Digital and analog linear speed control • Farnsworth method with speed from 10 - 99 wpm • Type-ahead keyboard buffer • Dual user/configuration mode..... **$149.99**

## VIBROPLEX®



The **Original Bug**, c. 1904, is still made using tools similar to those used by inventor Horace Martin. Designed for 20-50+ wpm.

**110 Standard** Painted base/chrome top **$169.99**

**105 Deluxe** Polished chrome base and top parts with fine jewel movements ..... **$199.99**

**100 Presentation** Polished chrome base and 24K gold-plated base plate and chrome top parts, fine jewel movements..... **$269.99**

**090 Gold** Gold-plated base, chrome top **$309.99**

**Vibrokeyers:** Single lever paddle *(left)* initiates automatic dots and dashes of an electronic keyer. Iambic model *(right)* allows automatic dot/dash insertion.

**Vibrokeyer**

**120 Standard** Black base, chrome parts. **$149.99**

**115 Deluxe** Chrome base and top parts with jeweled movements ..... **$184.99**

**113 Gold** 24K gold-plated base and top parts with jeweled movements..... **$279.99**

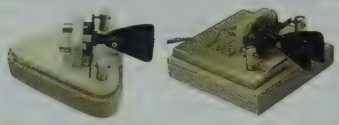
**Iambic**

**135 Standard**..... **$149.99**

**130 Deluxe** ..... **$189.99**

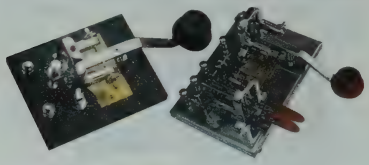
**125 Presentation** 24K gold-plated base and top parts with jeweled movements ..... **$249.99**

**123 Gold**..... **$279.99**



**145 Brass Racer Iambic** *(left)* Solid brass Iambic paddle on a polished hardwood base..... **$129.99**

**150 Square Brass Racer** *(right)* Solid lacquered brass Iambic paddle mounted on a polished hardwood base. Magnetic action, no springs.. **$139.99**



**Straight Keys** *(left)* Unique mechanical action, unlike any straight key ever manufactured.

**155** Standard..... **$149.99**

**160** Deluxe..... **$189.99**

**153** Gold ..... **$279.99**

**Deluxe Double Keys** *(right)* Choice of iambic and straight or vibrokeyer and straight key. Double keys allow you to instantly switch from using an electronic keyer to the personal touch of a straight key.

**165** Straight key/Iambic..... **$329.99**

**170** Straight key/Vibrokeyer..... **$329.99**

Secure
www.aesham.com

## NORCOMM™ TONE SIGNALLING PRODUCTS

### TONE SIGNALLING

**NC-101 Encoder** Micro-mini. CTCSS encoder, field tunable to any of the CTCSS tone frequencies between 67Hz and 254Hz. 5 to 15VDC. 0.60"w x 0.80"l x 0.15"h ***NorFax™ #5040***..... **$21.99**

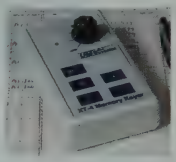
**NC-104 Programmable Encoder** Sub-miniature field programmable CTCSS encoder unit for limited space. Provides standard 37 EIA CTCSS tones + 69.37, 97.4 and 205.5Hz. 7 to 24VDC. 0.625"w x 0.80"l x 0.170"d ***NorFax™ #5150*** ..... **$26.99**

**NC-106 Programmable CTCSS Encoder/ Decoder** A sub-miniature crystal-controlled digital unit. Field programmable with dip switches providing any one of the standard 37 CTCSS tones + 97.4Hz. 6-24VDC. 0.85"w x 1.35"l x 0.28"h ***NorFax™ #5230*** ..... **$62.99**

**NC-401 Touch-Tone® Decoder** Unique micro-mini unit combining 2 distinct multi-addressable decoders for control of remote or local applications. Decodes all 16 DTMF characters with an address length of 1-14 characters and features E²PROM memory for storage of both primary and secondary codes, input/output functions, deadbeat disable and user outputs, plus default reset. Programming easily performed by means of a conventional DTMF encoder. 6-24VDC. 0.80"w x 1.37"l x 0.23"h. ***NorFax™ #5545*** ..... **$62.99**

***NorFax™ auto fax retrieval system – 530-477-8403***

## UM Unified Microsystems



**XT-4 CW Memory Keyer** Designed for QRP, Field Day, mobile CW county hunting - any portable operation. Also goes well in the shack with smaller rigs. 8-45 WPM. **Memories:** 4 with 100 Morse characters each positive keying output only via RCA phono jack output. 1/8" (3.5mm) stereo jack input. Paddle reverse for left or right-hand operation. Auto power save mode w/flashing LED engages after 30 min. of inactivity. Requires 9V alkaline battery..... **$69.99**

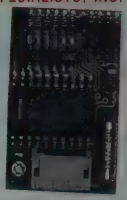
**KC-4** Cable set for XT-4..... **$9.99**

**VK-64 Combination CW and Voice Keyer** Store and play back CQs, contest exchanges, etc. in both CW and voice. Voice keyer has 4 memories (up to 15 seconds each). Set CW keyer between 10-45 WPM (4 memories programmable with 300 characters each). • Configure for iambic A/B keying, weight, side tone, and paddle reverse • Tune function • Auto repeat and 1/2 to 12-second delay (CW and message #1) • Run stand alone through panel or control with PC/laptop through printer port (standard 25-pin) • Use with major contest logging programs • 12V wall transformer power supply ..... **$229.99**

**VKC-8 Cable** Shielded audio cable semi-kit wired and tested except for microphone and transmitter connectors (8-pin) ..... **$24.99**

## COMMUNICATIONS SPECIALISTS, INC.

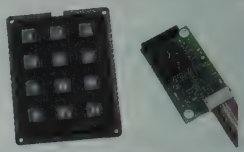
### TONE ENCODERS & DECODERS



**SS-64 Programmable CTCSS Encoder** Super small for easy install in most HTs. Standard with 64 EIA tones between 33 and 254.1Hz. Individual tones dip-switch selectable 0.66" x 1.08" x 0.21", requires 6–28 VDC..... **$28.99**

**TS-64DS Field programmable CTCSS Encoder-Decoder** DIP switch programmable for 64 EIA tones 33-254.1Hz. 1.25" x 2", 0.3", 6–28 VDC..... **$57.99**

**TE-32 Multi-tone Encoder** Provides direct access from a front dial rotary switch to all EIA CTCSS tones from 67.0 to 203.5Hz, allowing users to access various repeaters. Great for mobile or test bench. 5.25" x 3.3" x 1.7", 6–30 VDC ..... **$49.99**



**ID-8 Multi-Featured Automatic Morse ID'er** Programmable via 12-button pad • Eight changeable messages • 200 characters total • CW speed: 1-99 wpm • ID interval timing: 1-99 min. • ID hold-off timing: 0-99 seconds • CW tone: 100-3000Hz • 6-20VDC • 1.85" x 1.12" x .0.35" ..... **$69.99**

Wiring diagrams and lists of *Fax-on Demand* documents can be obtained from **www.com-spec.com.**

AMECO

**Combination Code Practice Oscillator and CW Monitor** Volume control, 3" speaker, & headphone terminals. Requires a code key and a 9V battery **OCM-2K** *Kit* **$19.99** **OCM-2W** *Wired* **$24.99**

**K-1** *(left)* Low-cost general purpose key w/phenolic base, adjustable tension, contact spacing.. **$10.95**

**K-4** *(right)* Deluxe high quality key. Polished brass base, shorting bar ..... **$16.95**

# GOLDLINE

## FULL RANGE DUAL ELEMENT MICROPHONES

Provides full-range, smooth and articulate audio for AM, FM and "HI-FI" SSB. The wide 60 –16 kHz frequency response, with a +4 dB midrange peak @ 2 kHz, produces brilliant articulation for clear, understandable SSB audio, and adds a well-balanced robust low end.

In addition, the GOLDLINE comes equipped with a second **HC-4** or **HC-5** element for *extra punch* when you need it.

The diecast body is finished in high lustre black lacquer and topped with a crushproof golden grill. A "wide-narrow" switch selects the second element, and a "soft touch" microswitch provides smooth, noise free PTT operation. Requires a CC-1 adapter cable.

**GM-4** GOLDLINE with Full Range and HC-4 elements ... **$140.99**
**GM-5** GOLDLINE with Full Range and HC-5 elements ... **$140.99**

**GM-V** "Vintage" GOLDLINE – A built-in matching transformer allows its use with older rigs like Collins, Hallicrafters, Johnson, etc. Uses the Full Range element and switchable Passive EQ circuit or an alternate narrow, more articulate response..... **$155.99**

## 20th ANNIVERSARY COMMEMORATIVE GOLDLINE

**HSP** Special Presentation Sports a gorgeous high gloss gold lacquer finish, laser engraved with a serial number (1-200). Comes with wooden case, laser engraved with the famous HEIL logo. Equipped with a single full-range broadcast element and Narrow/Wide switch, however it does not include the narrow HC element as in other Goldlines ..... Special Order **$199.99**

## 'HERITAGE'

### Professional Cardiod Dynamic Studio Microphone

**HHG** A replica of the famous "Elvis" microphone of the 1950's. The finish is a special "showchrome" where the steel body is heavily chrome plated, the finish looks about 6 inches deep. This incredible microphone houses the new Heil PROLINE commercial balanced output broadcast element. Out performs many $1000 studio microphones..... Special Order **$165.99**

- Generating Element: Dynamic
- Diaphragm: Large diameter low-mass aluminum
- Body: Chrome Plated Steel
- Frequency Response: 40 to 18,000 Hz
- Impedance: 600 ohms balanced (3-pin XLR)
- Output level: -55dB @ 1000Hz
- ON/OFF audio switch (not PTT)
- Polar pattern: cardiod, uniform front and back discrimination

**CB-1** Optional Classic Base... **$65.99**

Optional CB-1 Classic Base

## HIGH PERFORMANCE MICROPHONE ELEMENTS

*For improved audio performance, replace the cartridge in your factory microphone with a Heil; the same elements used in their High-Performance microphones. Tiny in size, easily replaces existing cartridges in most microphones.*

**HC-5 – Full Range Articulation**
Makes any rig sound better and more intelligible by providing full articulation and clarity. The response is 350–4000Hz, with a sharp roll-off under 300Hz and above 3100Hz, with a peak at 2100Hz. The result is very clear, easy-to-understand SSB audio for everyday communications that will get you lots of compliments..... **$30.99**

**HC-4 – The "DX Dream Machine"**
Super clarity with more punch for contest, DX and weak-signal VHF/UHF work. Outstanding results on aurora, backscatter, etc. Produces a high-pitched, pile-busting 500–3800Hz response with a 10dB peak @ 2000Hz, and a sharp 12dB per octave roll off @ 500Hz. It's a penetrating sound, not particularly pleasing for everyday rag chewing..... **$30.99**

## the CLASSIC 1930s Replica

An exact replica of the RCA 74B broadcast microphone. High quality, all metal construction - no plastic. Dual elements, featuring the new **PROLINE** broadcast dynamic element with a 50-18kHz response, plus your choice of the second communications element, easily switchable from the back panel, along with the 'soft touch' PTT switch. Dual impedance – a small slide switch on the bottom selects 600 or 30k ohms. The stainless steel trimmed cast steel base is removable and the logo can be rotated for inverted mounting on the new PL-2T Heil PROLINE boom. Needs a CC-1 cable. Heil Sound mails your call letters after purchase.

**HCL-5** (w/HC-5)... **$229.99** • **HCL-4** (w/HC-4)... **$229.99**
**HCL-iC** for early ICOM–prePRO.... Special Order **$229.99**

## the iCM

### High Performance Microphone for early *(pre-PRO)* ICOM transceivers

The f.e.t. electret element provides plenty of drive, great sound and plenty of punch for those older ICOMs that lacked enough gain to work well with high quality Heil or other dynamic elements. When using it with the high gain inputs of the new PRO series, simply reduce the microphone gain to acceptable ALC levels.

Beautiful platinum finish, soft touch PTT switch. Has an attached 8-pin ICOM cable with jack for the FS-2 foot switch or HS-1 hand switch. Fits all Heil booms and shock mounts..... **$89.99**

## STUDIO-STYLE MICROPHONES

Old favorites upgraded with a new body and PTT switch like the GOLDLINE. The **HM-10** comes with your choice of a HC-4 "DX Dream Machine" or HC-5 "Full Range Articulation" element. The **HM-10 Dual** contains both the HC-5 and HC-4 elements (switch selectable), a choice for varying conditions. Both need a CC-1 cable.

**HM-10-4** (HC-4) or **HM-10-5** (HC-5) ..... each **$65.99**
**HM-10-DUAL** (HC-4 and HC-5) ..... **$115.99**

## HAND MICROPHONES

**HMM Dual Element** – Heavy duty, commercial quality. Uses a "Full Range Dynamic" element and a switch selectable HC-4 "DX" element. Internal noise canceling cavity reduces background pick-up. The coiled cable is terminated with an 8-pin plug for KENWOOD or YAESU (specify) – not for ICOM..... each **$78.99**

**HMM-iC Single Element** – Same as HMM, but contains a HEIL "Electret Condenser" element designed specifically for outstanding performance with **ICOM** radios (no HC-4 or switch) ..... **$58.99**

## ADAPTER CABLES/ SWITCH/ETC.

**CC-1 Adapter cable** – Required for the GOLDLINE, and HM's. Specify the cable with connectors to match Drake, Icom, Kenwood, Ten-Tec or Yaesu radios. The 6 ft. cable is wired with a 1/4 in. female jack to accommodate the plug from a FS-2 Footswitch or HS-1 Pushbutton Hand Switch. (Specify radio)..... ea. **$30.99**

**HS-1 Pushbutton Handswitch** – Plugs into CC-1 jack for PTT control of your radio. A 6 ft. cable terminates into a 1/4 in. phone plug..... **$25.99**

**FS-2 Dual Footswitch** – Heavy duty and ergonomically correct with the hinge UNDER the heel. Two 10 amp switches activate in sequence for transceiver and amplifier control. Separate control cables with standard phone plug..... **$38.99**

**AD-100 Microphone/Boomset Adapter** – Allows use of all HEIL products with the YAESU FT-100 series. Solves the problem of the multiplexed microphone, touch tone audio and control data appearing on the microphone line ..... **$25.99**

**HD-AT Headphone Attenuator/Adapter** – Allows 1/4 in. headphone jacks to plug into a 1/8 in. jack. Contains a -6 dB pad which reduces output and allows use of HEIL headsets with FT-100 or IC-706 without overload and distortion..... **$5.99**

**XT-1 Matching Transformer** – A sub-miniature unit that matches Low–Z microphones to High–Z inputs used in older Collins, Drake, Hallicrafters, etc..... **$15.99**

**PRO-SETS** Rugged, lightweight boomsets designed for performance and comfort during extended wearing times. The padded, fully adjustable headband provides maximum comfort. Heavily padded vinyl earpads seal out noise, and are removable for washing. The flexible microphone boom is fully adjustable to your liking. Cables are wired with 1/4 in. stereo plug and 1/8 in. transmit audio plug and use a Heil AD-1 ($17.99) to adapt to various radios.

**PRO-SET-PLUS** Maximum comfort and noise seal is provided by new full cover leatherette ear pads with removable cotton covers. The cushioned inner headband is self-adjusting for a perfect fit, and the boom swings 180° for left or right side operation. Includes switchable, dual microphone elements; the Heil HC-5 for normal operation, the HC-4 for DX. The boom and top headband have rugged but flexible internal steel bands, and can be adjusted as you wish without fear of breaking. Great sound from frequency tailored speakers mounted in tuned cavities, and a phase reversal switch changes the sound field. The audio changes from being heard "centered" in your head, to a spatially widened effect. This feature greatly reduces listening fatigue and in some conditions can reduce noise and enhance intelligibility ..... **$189.99**

**PRO-SET-PLUS-IC** Same, but for ICOM, has HC-4 and 'ic' elements and adapter cable ..... **$206.99**

**PRO-SET-4** Lightweight headset with flexible boom and HC-4 "DX" element. Uses the Heil AD-1 cable system for use with different radios. **$130.99**

**PRO-SET-5** Same, but with the HC-5 "Full Range" element..... **$130.99**

**PRO-SET-IC** Same, for ICOM with 'ic' Electret element & cable... **$147.99**

**BM-10 Series** Headset/Boom Microphones – featuring a lightweight (8 oz.), soft and comfortable headphone for prolonged use in contests, etc. The high performance boom microphone is available with the Heil HC-5 "Full Range" or HC-4 "DX"element. The cord is wired with 1/4" stereo plug and 1/8" transmit audio plug and uses a Heil AD-1 ($17.99) to adapt to various radios.

**BM-10-4** with the HC-4 "DX" element ..... **$89.99**

**BM-10-5** with the HC-5 "Full Range" element ..... **$89.99**

**BM-10-iC** Headset/Boom Microphone for ICOM only A special FET Electret element produces plenty of articulate audio for ICOM radios, includes adapter cable..**$106.99**

**BM-5 SERIES** Same as the BM-10 but with a Single Headphone. Great for mobile!

**BM-5-4** with HC-4 "DX" element ..... **$69.99**

**BM-5-5** with HC-5 "Full Range" element ..... **$69.99**

**BM-5-iC** with HC-5 "Full Range" element, designed for Icom radios..... **$86.99**

**TRAVELLER** Single-side Headset/Boom Microphone Uses a high performance electret element and features Up/Down and PTT in-line switches. Includes a 3 ft. interface cable Lightweight and comfortable, usable with left or right boom position.

**Traveler-K** for 8-pin KENWOOD
**Traveler-KM** for modular KENWOOD
**Traveler-706** for the IC-706
**Traveler-8PIC** for 8-pin ICOM
**Traveler-YM** for the modular FT-817, 857, 897 and FT-900

**$89.99** each

# QUIET PHONE™

NEW!

## Active Noise Cancelling Headset

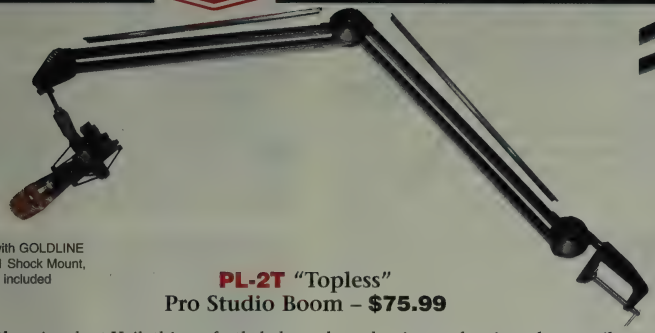
HEIL PROLINE Affordable Performance

The Heil QUIET PHONE is a result of many years of research and development at Heil Sound. Normal headsets are designed to reproduce audio and pay little attention to the outside environment. In most cases, the surrounding background noise is louder than the audio that you are trying to hear in the headset.

Heil Sound applies a unique active Noise Canceling Technology using two small out-of-phase microphones and a differential amplifier placed deep inside the headphones. These microphones pick up the outside ambient noise as well as the audio information. Using the phase information and processing it in the differential amplifier reduces sounds under 400 Hz up to 70%. The result is a dramatic reduction of ambient noise as well as noise from blowers, jet engines, the TV in the next room and other operators in the shack.

**HQP $99.99**

- Soft Leatherette cushions with adjustable headband to insure most comfortable listening for extended periods of time.
- Operates on a single "AA" cell for 30 hours providing clean high fidelity dual channel audio.
- Right angle 1/8 in. plug for use with most CD or MP-3 players. The right angle allows plugging into the audio jack usually located in the arm rest of commercial airliners. A 1/4 in. stereo adapter is included for use with your amateur radio equipment.
- Folds flat for easy carrying



Shown with GOLDLINE and SM-1 Shock Mount, not included

## PL-2T "Topless" Pro Studio Boom – $75.99

Built by the wizards at Heil, this perfectly balanced arm has internal springs that are silent when moved, and a removable top to simplify hiding your microphone inside the wire channels. There is no need to remove the connector in order to snake it through. Simply remove to PL-2T top, lay the microphone cable in the channel and snap the top back into place. It puts the microphone right where you want it. The precision mechanism provides a 41 in. reach and is balanced for microphones up to 2 pounds. Comes with a "C" clamp table mount. Accepts 5/8" x 27 threaded microphones, or for real class, attach a Heil SM-1 Ultimate Mount System.

Shown with GOLDLINE Microphone, not included

## SM-1 The Ultimate Shock Mount System – $50.99

For GOLDLINE, HM-10, or "icm" microphones. An 8-point flexible suspension supports and isolates microphones from mechanical vibrations. The 3/8"-27 threads will mount on to the PL-2T and other standard microphone stands and booms.

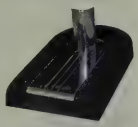
Shown with GOLDLINE and clip, not included

## SB-1 Small Microphone Boom $33.99

Extends 10-20 inches, with angle adjustments for proper positioning. Std. 5/8" x 27 thread mic. mount. "C" clamp mount secures to shelf or table.

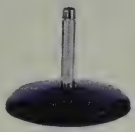
## CB-1 Classic Base - $65.99

Heavy, 2 lb. 7 oz. lb. cast steel with stainless steel trim, 4"w x 6-1/2"d x 3/4"h with a 3"h chrome 5/8" x 27 thread mount. *A beautiful reproduction of a 1950 RCA microphone base.*



## TB-1 Table Base Mount - $25.99

A heavy, 2 lb. 10 oz cast steel, 6" diameter x 1"h with a 4" high chrome 5/8" x 27 thread microphone mount.



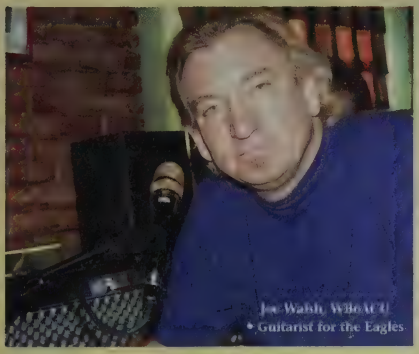
# PROLINE DIVISION

*Affordable Performance*

**PROLINE Specifications:**

**Element:** Dynamic
**Body:** Matte steel, die cast zinc
**Response:** 40-18 kHz
**Impedance:** 600Ω balanced
**Output Level:** -55dB @ 1000Hz
**Polar Pattern:** Cardiod
**Weight:** 14 oz.

Special Order




These great new Heil products are designed for commercial broadcast, studio recording and concert sound applications, all requiring a smooth, wide response without the usual I.M.D. that has plagued all other dynamic elements. The new Heil PROLINE element has raised the bar, producing clean, clear natural audio with a lack of bass-boosting proximity effect. All Heil PROLINE products are true 600 ohm balanced output with commercial 3-pin XLR male connectors. For use with unbalanced inputs use one of the special Heil XLR cables.

## GLP GOLDLINE PRO

The most natural, cleanest vocal microphone. designed for broadcast, recording and live performances. As with all Heil PROLINE elements, it achieves its exceptional performance by using a powerful magnet structure of Neodynium, Iron and Boron with a 1-1/8" aluminum alloy, low mass voice coil assembly. Balanced 600 ohm output; usable with unbalanced inputs by using a Heil XLR cable.....Special Order **$168.99**

## HCLP CLASSIC PRO

An exact replica of a 1930s RCA broadcast microphone. The beautiful stainless trim base can be removed allowing the Classic Pro to be inverted and installed on the Heil PT-2T Pro Studio Boom. The single Heil PROLINE element outperforms $1,000 microphones. Has true 600 ohm balanced output; may be used with unbalanced inputs by using an XLR cable... Special Order **$269.99**

*Heil mails you your Call Letters after Purchase*

**CC-1 XLR Mic Cable** (Goldline PROs) for 8-pin Icom PRO, Yaesu or Kenwood.... Special Order **$30.99** ea.

**QZ/5 Passive Noise Reduction** *(right)* Isolates listener from noise sources like car and jet engines. Ideal for the race track and metal detection! Unique head-strap, velcro design allows for secure fit and immobilization. 60Ω impedance • 102dB SPL/1mW sensitivity • 40-20,000Hz sensitivity • Volume control and stereo/mono switch • Single entry, 8' coiled cord, 3.5mm plug • 15 oz..... **$49.99**

**QZ/50 Revolutionary Active Noise Reduction** *(left)* Reduces harmful and annoying low frequency sounds in noisy environments. Behind-the-head design provides comfort during extended wearing. Dynamic element, 30-20,000Hz • 32Ω impedance • 98dB sensitivity • Single entry 8' cord, 3.5mm plug • Requires AAA battery • 2.5 oz..... **$49.99**

**QZ/99 Passive Noise Reduction Stereophone with Mono/Stereo Switch** Frequency response: 40-20,000Hz • Coiled, single entry, 8' cord with 3.5mm/6.4 mm plug • Sensitivity: 102dB SPL/1mW • Impedance: 60 Ω • 15 oz..... **$59.99**

**QZ/2000 Noise Reduction Stereophone** Revolutionary Active Noise Reduction reduces harmful/annoying low frequencies • >15dB SPL from 40-200Hz; average 10dB SPL from 30-1000Hz • 15-20,000Hz response • Straight, dual entry, 4' cord • Compact control case and collapsible stereophone • Adjustable headband • Input jack for audio play-through and 2-prong adapter for in-flight use • 101 dB SPL/1mW sensitivity • 5kΩ impedance • Includes 2 AA's • 2.3 oz..... **$169.99**

**KTX/8 Portable Stereophone** Dynamic element for extended frequency response from 40-20,000 Hz • Foam ear cushions for open, hear-through sound • Volume control on the cord for easy level adjustment • Collapsible headband design for protective storage and maximum portability • Reliable "L" plug for improved durability and reliability • Straight, single entry 4' cord..... **$14.99**

**Y-88** "Y" Cord Delivers dual stereophone connection from a single sound source. Reliable "L" plug for improved reliability and durability..... **$4.99**

# PREMIER communications

**SPM-100 Small Speaker/Mic** This is a lightweight, compact unit. The microphone features a high-quality condenser-style mic element and high-fidelity audio circuit that produces excellent transmitted audio clarity, as well as a powerful speaker. It may be secured to the user's lapel or shoulder..... **$27.99**

**SPM-400A Mini Boom Mics** The SPM-400A headsets include an in-the-ear speaker and a rubber-covered earloop design that adjusts to comfortably fit either the right or left ear of any user. The unit features an in-line Push-To-Talk switch that can be clipped to the user's lapel or belt **$37.99**

See the Price Guide to find correct model numbers for your specific brand of radio.

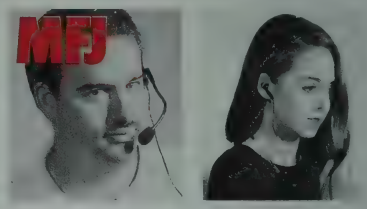
# YAESU
*Choice of the World's top DX'ers™*

**MD-200A8X Ultra-High Fidelity Desktop Microphone** Designed for use with the MARK V. Employs a studio-quality, wide range (30-17000Hz) dynamic element optimized for high fidelity SSB. Exclusive Variable Side Pressure Control allows adjustment of overall frequency response from natural, high-fidelity sound of everyday S-9+ rag chewing, to high-articulation with a moderate peak above 1500Hz for DX or contests. • Aluminum die-cast base with locking and momentary PTT switches • Up/down scanning switches • Housing can accommodate favorite DX or contest mic element • Also works with FT-847, 920, 1000MP, FIELD, also 1000/1000D without "TX" LED • Includes dual-connector cable with regular and modular plugs • 4.7"w x 12.6"h x 4.9"d, 2.2 lbs..... **$379.99**

# KENWOOD

**HS-5 Deluxe Headphones** Specifically designed for use with communication systems. Provide natural sound and eliminate pressure, permiting long hours of fatigue free listening. To increase the volume level, when you are using the headphones in a noisy room or want privacy; replace the ear-pads with the vinyl leather, pressure fit ones, increasing the sound pressure by about 10dB while sealing out noise. (both pads included). Includes 6 feet connecting cord with plug. • 8Ω impedance • 200mW @ 1000Hz max. input • 150-4000Hz (-6dB) frequency response • Approx. 350g..... **$79.99**

**HF-24RS Scanner Headphones** Designed specifically for racing fans. • Listen to driver/pit conversations with reduced noise • Snug fit, cushioned headband and comfort fit cushions allow hearing action over crowd and engine noise • Dual volume control to maximize hearing levels • Includes 3.5mm, premium-gold, right-angle plug with a 10' coiled cord..... **$19.99**




## HEADSET MICS

**288 Deluxe Headset Microphone** *(left)* Lightweight, comfortable for Yaesu, Icom, Kenwood units. Superb transmit audio, and earphone tonal quality. Foam covered microphone element is attached to headset with a flexible rubber boom allowing proper positioning. PTT switch attached to 6' cord, hold or attach to clothing..... ea. **$24.99**

**292Y Featherweight™ Earphone/Mic** *(right)* Has an earbud earphone and a tiny thumb-sized microphone/PTT switch that's built right into the 4 ft. cord. Works with Icom Q7A, Yaesu FT-10R, FT-40R, FT-50R and VX series transceivers ..... **$17.99**

## MICROPHONES

**297 Desk Mic** *(left)* A sensitive condenser mic element coupled with a low-noise amplifier. Speech tailored - select *SSB Mode* for smooth, articulate DX or *Full-range Mode* for clear FM or AM. Flexible microphone boom, momentary and locking PTT switch. On-the-Air LED indicator, frequency up/down switch. • 4"w x 1.25"h x 6"d base • Requires 2 AA's..... **$69.99**

**5397 8-Pin Adapters for 297** Available for Yaesu, Icom and Kenwood units ..... ea. **$15.99**

**295 Mini Speaker Mic** *(right)* For popular Yaesu, Icom and Kenwood handhelds. Uses a non-directional electret element. Transmit LED.. ea. **$15.99**

## HEADPHONES

**392B** Perfect for amateur and shortwave listening. Superb padded headband/ear cushion design, only 8 oz. High-performance drivers with full 100Hz-24,000Hz response provide enhanced sound & speech fidelity. Earphones have individual volume and tone controls. Gold-plated plug, 9' cord and 1/4" adapter (mono/stereo) included ..... **$19.99**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# K-COM

## TELEPHONE RF INTERFERENCE FILTERS

Cure telephone RF interference in the most irritating cases even when dealing with transmitters with full legal power output. Use any number of filters with no adverse effect on telephone performance.

**RF-1** For single line equipment including wired or cordless phones, answering/fax machines, modems, etc. Uses standard modular connectors ..... **$16.99**

**RF-1/2-LINE** For 2-line or multi-line, multi-station electronic key phone systems..... **$22.99**

**RF-1/COILED** For use when RFI enters thru coiled telephone cord between base and handset **$22.99**

**RF-2** Hard-wired, provides a wide range of installations optional to add RFI rejection at a variety of physical/electrical locations in the system; inside jacks, behind wall mounts, etc..... **$10.99**

# VECTRONICS®

**LP-30** *(right)* **Low Pass Filter** Suppress TV interference from HF transmitters. Use between transmitter and antenna or tuner. Up to –70dB attenuation of harmonics falling in TV bands. For 52Ω, up to 30MHz and 1500W RF continuous power. **$69.99**

**LP-2500** Rated for 2.5KW continuous.. **$129.99**

**HPF-1** *(left)* **High Pass Filter** Install at TV antenna terminals. Stops interference caused by overload or harmonics from HF transmitters operating below 30MHz. High harmonic attenuation but low loss in the 52-550MHz TV passband. For 300Ω (balun and Type-F connector supplied for 75Ω)..... **$24.99**

**High Pass Filters** Stop TV, FM and VCR interference caused by harmonics or overload. Installs at TV or VCR antenna terminals or connector. Sharp frequency cutoff at 52MHz with 70dB attenuation below 50MHz.

**HP-300T** (300Ω) or **HP-75T** (75Ω).....ea. **$12.99**

# DCI DIGITAL COMMUNICATIONS

## BANDPASS FILTERS

Install between a 2m, 220 or 440MHz rig and antenna to reduce strength of out-of-band interfering signals while allowing wanted signals to pass through at full strength. Eliminate squeals, squawks, beeps and strange voices from a UHF or VHF radio caused by intermodulation from strong, nearby pagers, police radio, etc. Effectively reduces spurious emissions on transmit. Hear desired signals even in crowded, urban centers • Design: 2M/220MHz – 4 helical resonators; 440MHz – four 1/4-wave linear resonators; both with aperture coupling • VSWR 1.5:1 • 200W rating • Made of extruded aluminum, copper and brass • 12w"x 3"h x 5"d • 2 lb, 11oz

**146-4H** 144–148; Loss <1 dB; Selectivity: –57dB @ 136MHz and –43dB @ 156MHz. SO-239 silver-teflon connectors..... **$99.99**

**146/444DB** 144–148/438–450MHz; Selectivity: –50dB @ 136MHz, –40dB @ 156MHz, –30dB @ 425MHz, –25dB @ 465MHz. SO-239 silver-teflon connectors..... **$169.99**

**145-2H** 144 to 146MHz ..... **$99.99**

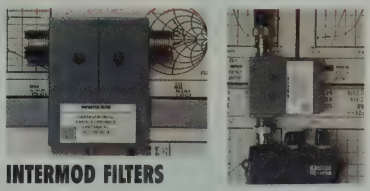
**223.5-3H** 222 to 225MHz; Loss 1 dB; Selectivity: –33dB @ 233 3MHz and –28dB @ 233 MHz. SO-239 silver-telfon connectors..... **$109.99**

**445-10C** 440-450MHz; Typical selectivity: –47dB @ 425MHz, –50dB @ 456MHz; Loss 1dB. Type-N silver-teflon-gold connectors..... **$119.99**

**435-10C** 430 to 440MHz..... **$119.99**

**Upgrade to type-N connectors on 2m and 220MHz models – add $10 to price; Special Order**

# PAR ELECTRONICS



## INTERMOD FILTERS

Solve most intermod or front end overload problems from paging systems, etc. with these asymmetrical, 45-54dB notch filters. Centered on the offending pager spectrum of 152-153MHz, they work effe-ctively with a loss of ≤0.5dB and a 1.25:1 VSWR. Works with dualbanders by providing a low-loss pass-thru of 70cm signals.

**VHFDN152** 2m base/mobile intermod filter, rated 50W, SO-239 connectors, 2"h x 1"d x 2½"w **$69.99**

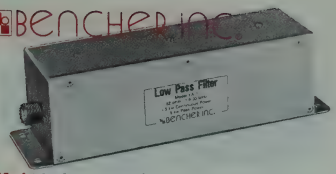
**VHFTN152-158** **Triple Cavity** Similar to the VHFDN152 except it places a second notch in the 158MHz pager band in addition to the dual notch in the 152 MHz band. 2½"h x1"d x 3"w..... **$82.99**

**VHFDN152HT** 2m intermod filter for handhelds BNC connectors, 20W. 1⅝"h x ⅞"d x 2"w.. **$68.99**

**UHFDN450** UHF intermod filter for base or mobile. Blocks pagers & two-way transmitters that cause 70cm intermod; transparent to 2m.. **$69.99**

**UHF-12** 12" Belden RG-58/U jumper cable with silver/gold/teflon PL-259's on each end..... **$9.99**

# BENCHER INC.




**YA-1** The best general purpose low pass filter available. Check the specs at www.bencher.com! 1kW, 80db attenuation @ 50MHz..... **$85.99**

# MFJ ENTERPRISES, INC.

**704** 50Ω **Low Pass Filter** Install between HF transmitter and antenna to reduces TVI from harmonics that fall in the TV band. Handles 1kW from 1.8 to 30MHz .... **$49.99**

**711** 75Ω **High Pass Filter** Install at TV/VCR antenna input to reduce/eliminate interference from HF transmitters operating up to 30MHz.. **C/O $19.99**

**784B** **Super DSP Filter** Eliminates those hetrodynes; reduces noise and interference on SSB/CW/AM, digital modes, VHF, EME, satellite. Tunable FIR filters minimize ring, prevent data errors. Up to 60dB attenuation. Tunable Spotting Tone™ auto tunes CW filter in narrowest bandwidth. 2W audio amp with AGC. 12V DC or 110VAC with MFJ-1315. 2.5"h x 9"w x 6"d..... **$229.99**

**701** **RFI Free Choke Kit** Eliminate common RFI problems by winding offending cables around an RFI suppressing toroid. Effective from 0.5-200MHz. Separates into halves for easy winding of all types of cable: computer ribbon, TV coax, power cord, telephone wire, audio-video cables. Halves mount in snap-together plastic frame. For severe RFI problems and larger cables, multiples can be stacked for more effect. (Pack of 4 toroids)..... **$14.99**

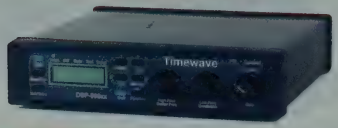
# RF Inquiry

**HI-Q Common-Mode™ Filters** For tough RFI problems. Lowpass filters eliminate harmonic-type interference but are not capable of filtering out "Common-Mode" (differential noise energy transfer between transmitter and ground including stray capacitance). For cleaner signals, add an RF Inquiry filter. • 1.8–70MHz • -50 to -60db below 250MHz common mode attenuation • Insertion loss: less than 0.1dB • 50Ω impedance • Connectors: SO-239 teflon

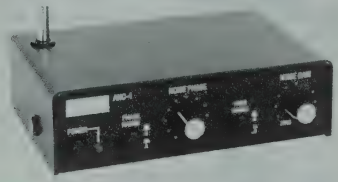
**CF250E-UHF** 250W, .98 x 10 in. 0.5 lb. **$89.99**

**CF5KV-UHF** 5kW, 2.1 x 12.6 in., 1.3 lb **$124.99**

## TIMEWAVE TECHNOLOGY INC.

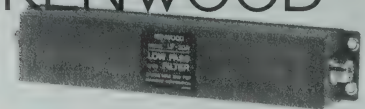



**DSP-599ZX Noise Filter** Digital Signal Processing provides superior reduction of QRM and QRN • Incorporates the newest high speed CPU that gives unparalleled features and is field upgradeable • Exact filter settings seen through the LCD, push buttons, and "Visible Memory" • Optical encoders for continuous tuning of filters • Examines and measures signal and noise correlation, dynamically filtering out undesired noise • Data and bandpass filters with steep skirts and linear phase response for CW and RTTY • Bandwidths range from 10Hz-600 Hz, and center frequencies from 200-2150Hz • Wider filters allow easy tuning and listening to multiple CW signals simultaneously • Supported data filters are RTTY (two methods of use), AMTOR, PacTOR, G-TOR™, HF Packet, SSTV, WeFAX, SITOR and CLOVER • Test instrument mode provides audio sine wave generator, audio millivoltmeter and two-tone audio generator for maintenance/set-up of audio circuits in radios • VHF/UHF weak signal and aurora provides remarkable improvement in clarity • Improves readability of distorted aurora SSB signals ..... **$436.99**




**ANC-4 Antenna Noise Canceller And Diversity Combiner** Works with any transceiver (250W or less) or receiver for voice, data and CW from 500kHz–80MHz. Reduces or eliminates locally-generated power line, computer and TV noise. It cancels noise before it affects AGC circuits. Frequently, reception of signals well below noise level is possible. Con-nects between antenna and connector. A second antenna acts as a noise pickup. Front panel controls allow adjustment of signal phase and magnitude. The ANC-4 also operates as an active antenna using a noise antenna and noise gain control to amplify antenna output. And, it can be used as a diversity combiner to pick up weak signals or null interfering signals. Requires 11–16V DC @ 300 ma. 1.7"h x 6"w x 4.3"d, 2 lbs..... **$209.99**

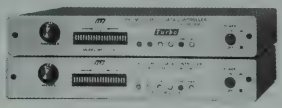
## KENWOOD




**LF-30A Low-Pass Filter** Suppresses harmonics contained in RF signals from HF transmitters, reduces possibility of TVI/BCI. 30MHz cutoff for 160-10M operation. Attenuation: >90dB @ 90-300 MHz. Insertion loss: < 0.5dB @ 30MHz. 50Ω, rated 1 KW PEP. 9.6"w x 2"h x 1.5"d, 1.2 lbs..... **$64.99**

## MFJ ENTERPRISES, INC.

**1270C TAPR TNC-2 Clone** Interfaces computer with RS-232 serial port and terminal program for VHF/UHF, OSCAR and non-FM packet. Switchable HF/VHF modems. EasyMail™ personal mailbox, WeFAX. KISS interface for TCP/IP, 256K EPROM & 32K RAM. AX.25/Level 2-V2 software. Comes with interface cable, serial port connector and AC adapter. 12 VDC. 9.5" x 7.5" x 1.5"..... **$119.99**



**1278B Multi-mode Data Controller** 10 modes: PACTOR, 16-level FAX, color, SSTV, PACKET, AMTOR, RTTY, ASCII, CW Navtex & memory keyer. Enhanced mailbox • 32K RAM • 16-gray level modem • 20 LED tune indicator • MARS mode • Internal modem header • 10 program message buffers • Dual radio ports • KISS interface • Host mode • Threshold control • RS-232/TTL ports • 12 VDC • 9.5"w x 9.5"d x 1.5"h..... **$279.99**

**1278B/DSP** The 1278B w/DSP filter.... **$359.99**

**780 DSP Board** Plug-in "brick wall" DSP data filter for 1278B ..... Closeout **$59.99**

**781 DSP for all TNCs** This separate unit gives your Kantronics, Timewave, etc, TNC digital signal processing power..... Closeout **$89.99**

**1272 TNC Switch** Pushbutton selection for voice or digital. You specify the radio and TNC connection. Multiple models available .....(ea.) **$39.99**

**1273B Sound Card Interface** A basic plug-and-play interface for the digital modes. Has jacks for sound card, radio, speaker and RS-232 (no mic jack or switch). Includes RS-232, audio and mic cables and software. No external power needed. **1273B** for 8-pin round mic plug, **1273BM** for 8-pin modular (RJ-45) mic plug ..... ea. **$59.99**

**8621 2M Packet Data Radio** High performance thru 9600 baud. Plug in TNC cable, your antenna and power – you're ready for packet. Crystal control on 145.01MHz, 5W output. Requires 12 VDC @ 1A. 5"w x 5.5"d x 1.5"h ..... **$139.99**

**8621X2 Dedicated VHF Data Radio for APRS** Automatic Packet Reporting System transceiver. Ready to go on 144.39MHz ..... **$149.99**

**1275/1275M Sound Card-to-Rig Interface** Connect between a transceiver and computer and enjoy all digital modes without additional equipment. Operate PSK-31, packet, APRS, AMTOR, RTTY, SSTV, CW, HSCW meteor scatter, contest voice keying, contest memory keyer, etc. Internal jumpers program mic wiring for any radio. Includes audio cables, power plug and a CD with a collection of the most popular amateur radio software to operate the digital modes. Requires 12VDC (110 VAC with optional adapter). **1275** for 8-pin round mic plug or **1275M** for 8-pin modular (RJ-45) .. ea. **$99.99**

**1279 Super Sound Card Interface** This super sound card interface has all of the features of the MFJ-1275 plus • Auxiliary input jack, allows switching of a sound card from the 1279 to something else. No more plugging and unplugging! • Direct CW/FSK keying jack, allows direct CW or FSK keying operation • Headphone jack, use stereo headphones, also turns off external speaker • Footswitch, use a footswitch or other for PTT (push-to-talk) when not using VOX • Plug and Play, includes software, RS-232 and audio cables, AC power supply • **1279** for 8-pin round mic plug, **1279M** for 8-pin modular (RJ-45) mic plug..... ea.**$129.99**

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# West Mountain Radio

## RIGblaster

The easiest way to connect a radio to a PC to operate old or new, analog and digital modes. Over 100 ham radio programs transmit and receive over 20 different modes. Your radio, a RIGblaster, PC, and appropriate software take the place of old expensive adapters, TNC's, digital voice keyers, microphone equalizers, rig control interfaces, DSP receive filters, internet linking interfaces, automatic beacon clocks and more. Use the processing power built in to your PC instead of a old fashioned outboard box that only does a few things. All RIGblasters are fully ground isolated, come with an a up to date CD collection of ham radio operating software, all the cables and power supply you need to get on the air. Five models to choose from for your operating needs. Use with any modern computer and radio with a matching mic connector.

**RB/PR/C RIGblaster Pro** The only complete computer interface! Allows you to use all sound card software, computer control a radio, equalize and record a microphone, operate keyboard FSK and CW and more. Built in rig control interface for most radios. Single serial port rig control and sound card operation. Separate CW and FSK keying outputs. Transmit audio muting. Two mic. switchover. For the ham that wishes to do everything that can be done with computer and a radio. 8-pin and RJ45 radios as supplied..... **$249.99**

**RB/PL/C RIGblaster PLUS** Run all sound card modes with fully automatic operation with your mic. No manual switching, no plugging or unplugging. Works with all transmit and receive sound card software. CW or FSK direct keying output. 8-pin and RJ45 radios as supplied..... **$139.99**

**RB/M8/C RIGblaster M8** Run all sound card modes with fully automatic operation using your mic. No manual switching, plugging or unplugging. Works with all transmit and receive sound card software. 8-pin and RJ45 radios as supplied.. **$109.99**

**RB/NO/8C RIGblaster Nomic 8-pin** Small and inexpensive. Perfect for portable or temporary setups. No power supply needed. Perfect for an Internet remote link. Unplug your mic. whenever you wish to use sound card software. 8-pin radios as supplied..... **$59.99**

**RB/NO/RJC** RJ-45 Nomic RIGblaster Same as above with RJ45 connector ..... **$59.99**


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# Kantronics

## MULTI-MODE DATA CONTROLLERS

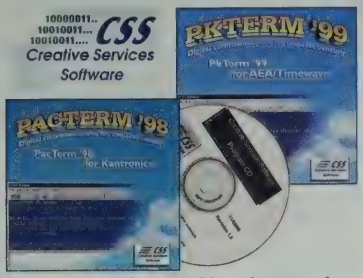
**KPC-3 Plus/128** 1200 bps • Packet, GPS/APRS, Host, KISS and WEFAX modes, use with EMWIN • Personal Mailbox (PBS) now supports multiple calls • Remote access, sensing and control with two A/D and two control lines • PBS 100k, expandable with optional 512k RAM..... **$186.99**

**9612 Plus/128** 1200 port and second port of 4800–38,400 bps • Most modes/capabilities of the KPC-3 Plus and POCSAG (paging) • Unique design allows the addition of another port, high or low speed • Remote access, sensing and control capability • Telemetry transmission capability... **$349.99**

**Hostmaster II+ Packet Software** A great program to combine with the KAM, KPC-3plus/128 and older TNC's (not for KAM 98 or KAM XL). The program uses split screens, allows for packet and non-packet operations (with KAM) simultaneously and cuts down dramatically on the use of keyboard commands to your packet unit..... **$89.99**

**KAM 98** Single port multimode TNC for HF and VHF use • Packet, GPS/APRS, Host, KISS, WEFAX, CW, RTTY, AMTOR, PACTOR, G-TOR®, Free signal detection for HF email, A/D inputs/TTL outputs • HC11 for more processing power to accommodate future upgrades • Wider range of speeds; use 1200 bps packet on 10 meters ..... **$399.99**

**KAM XL Multi-Mode DSP Controller** Kantronics third generation multimode TNC, a state-of-the-art design giving operations on HF, VHF, and UHF, while supporting DSP modems and popular new modes of operation • Packet 300/1200bps • G-TOR • Pactor I • AMTOR ARQ (FEC, SELFEC, CCIR 476 and 625) • PSK31 • RTTY • NAVTEX/AMTEX • ASCII • WEFAX • CW • Dual-port mailbox • Remote SYSOP access • GPS NMEA-0183 compatible • Kantronics Host Mode • KISS..... **$399.99**




**Host terminal Software** – Takes advantage of true multitasking capabilities of Windows 95, 98, ME, NT and 2000. Release 1.5 with PSK-31 support.

**PacTerm 98** For Kantronics™ TNCs ..... **$79.99**

**PK-Term 99** For Timewave and AEA (PK-12/96/232) TNCs. Support for PK-232/PSK..... **$79.99**

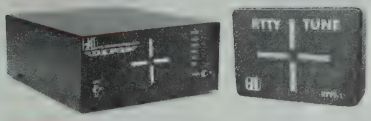
# TIMEWAVE TECHNOLOGY INC.

**PK-232/PSK Multimode Data Controller** The most popular data controller ever built, now with a sound card interface. Offering a new level of performance with accurate Digital Signal Processing filters for internal data modes and dual transformer isolation for sound card data modes. • 18 DSP filters, twin peak RTTY filters, 100HZ CW filter and adaptive PacTOR filters. Weak signals magically appear through noise and interference bounces off the filters for cleaner copy than old analog filters. Supports new sound card modes in addition to existing PK-232 modes. Comes with a complete cable and connector set, in addition to Timewave's on-line and telephone support. Requires 11-16V DC @ 800 ma. 8.25"d x 2.5"h, 3 lbs..... **$531.99**

**PK-96/100K** 9600/1200 packet TNC 9600 and 1200bps packet-ready • GPS firmware standard • Remotely program • GPS commands • Stand-alone tracking hardware HDLC for accuracy • True DCD to hear weak signals • Gateway as a node • Full MailDrop facility • PC PackRatt Lite™ terminal control and APRS™ software included • AEA host mode • Advanced command set • Identify TCP/IP, TheNet and NetRom • Separate external TX for 9600/1200bps adjustments • External reset • Windows™ and MacIntosh™ programs available • Requires 12V DC • 6.25"w x 7.5"d x 1.375"h, 1.25 lbs. 128K RAM ..... **$219.99**

**AC-5 120V Power Supply** Provides 13.8VDC @ 1.7A for the DSP-599zx, PK-232/DSP, DSP-2232, DSP-1232. DSP-232, PK-900 or other low consumption accessory. Desktop, has 6 ft. long input and output cords so the unit does not take up any wall socket or power strip space..... **$24.99**

# HAL COMMUNICATIONS CORP.




**DXP-38 Multimode HF Modem** Stand-alone DSP modem provides excellent performance on RTTY, CLOVER, ASCII, AMTOR and P-Mode. DOS and Windows (95, 98, NT 4.0) software included. Uses the same serial I/O commands as, and will operate with any 3rd-party software written for the DSP-4100. 12V DC @ 0.6A. 3" x 7" x 10".. C/O **$369.99**

**RTTY-1 Tuning Indicator** EZ to use, very accurate. works with any FSK radio modem. Crossed LED bars show correct tuning for FSK modes including Baudot Teletype (RTTY), ASCII Teletype, AMTOR, SITOR, P-Mode, HF Packet. Filters: 2125 Hz (Mark), 2295 Hz (Space) 5.5"w x 3.75"h x 1.25"d, 0.5 lb. Requires +9V-18V DC @ 160 ma ..... **$99.99**

# Coaxial Dynamics

## RF DIRECTIONAL WATTMETERS

**81000-A** RF Directional Wattmeter Accurate RF Power measurement in 50Ω coaxial systems. Uses an internal line section and "Quick Match" plug in elements in the range of 0.1–10,000 watts full scale, and from 0.45 to 2300MHz.

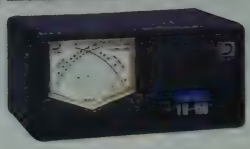
Simply plug in the appropriate measuring element and select forward or reflected direction. Measured average RF power is indicated directly on the large 4.5" "taut-band" meter with three scale display. The meter is also mirrored and shock mounted to provide the most reliable and accurate readings.

Strong shock-proof housing. With SO-239 connectors (Type-N female Special Order ..... **$260.99**

**83000-A** RF Peak Reading Wattmeter Similar in appearance and operation to the standard Model 81000-A wattmeter. Contains an amplifier which allows measuring of both Average and Peak Envelope Power (PEP) with the flip of a switch. Internal 9V battery is required and supplied for peak reading mode..... **$393.99**

**ALAN BROADBAND ZAP-CHECKER** Broadband Field Strength Bug Detector A wide-band (10MHz to 4.5GHz) receiver that provides visual indications of the presence of RF energy. Sensitive, detects 2.4 GHz bugs at 40 feet. Analog meter and LED displays for viewing at a distance and at nighttime. Silent vibrator mode for pocket detection and hands-free operation. Use for bug detection, wireless, aircraft maintenance, health/environmental and ham radio. Detects and measures cell phone radiation, microwave ovens, computer wireless devices, microwave data transmissions, covert surveillance cameras and bugs, radiating computers and electronic games and background radiation levels - without TV and FM. 2"w x 5"h, 5 oz..... **$89.99**

# DAIWA industry co. ltd



## CROSS NEEDLE SWR/POWER METERS

**CN-101** Covers 1.8-150MHz, rated at 1500W from 1.8-60MHz and up to 1000W at 144MHz. Shows Forward and Reverse power and VSWR simultaneously. Three power ranges: 15/150/1500W (RMS or PEP); ±10% of full scale accuracy. SWR detection sensitivity: 4W minimum. 50Ω impedance, SO-239 connectors. 6"w x 3"h x 3.875"d, 1.5 lbs ... **$99.99**

**CN-103M** Same as CN-101, but covers 140-525MHz and rated at 200W. Two power ranges: 20/200W (RMS or PEP) ..... **$99.99**

## PROFESSIONAL SERIES

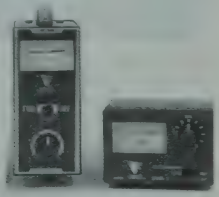
The CN-801 series of cross needle meters features the most accurate meter and largest meter face in the Daiwa line. The large, easy-to-read meter has .5W increments and is lighted. This is truly a professional quality meter. • 5W SWR detection sensitivity (min.) • 50Ω impedence • 6"l x 4"h x 4.5"w • 2.2lbs

**CN-801H** 1.8-200MHz, 20/200/2kW..... **$149.99**

**CN-801V** 140-525MHz, 20/200W ..... **$154.99**

**CN-801S** 900-2500MHz, 2/20W, Type-N connectors ..... Special Order **$239.99**

# VANCO



## LOW COST METERS

**SWR-1** Field Strength or SWR Meter *(left)* Range: 3.5-150MHz, Impedance: 52Ω, SWR: 1:1–3:1, Accuracy: 5%, Meter sensitivity: 300uA. 5" RF pick-up antenna. 6"h x 2"w x 2.875"d, 14 oz. .. **$19.99**

**SWR-3** SWR Meter *(right)* Range: 1.7-30MHz • Impedance: 50–52Ω • SWR: 1:1-3:1 • Accuracy: 5% • Sensitivity: 300uA • 2.5"x3.5"x3", 6oz..... **$14.99**

**370052** Digital Multi-Meter 3.5 digit LCD, 0.5"h with polarity • DC volts, 5 ranges: 200mV-600V • AC volts: 200V and 600V • DC current (5 ranges): 200uA-10A • Resistance (5 ranges): 200Ω-20kΩ • Diode test: forward voltage drop • Transistor test: shows hFE value • Comes with 100-hour, 9V battery and plug-in test leads • 2.76"w x 4.96"h x 0.94"d, 8oz ..... **$19.99**

# Bel MERIT

**DX-405** Multi-function Multimeter 10 functions/39 ranges • 3.5 digit, manual ranging • Frequency meter, to 20MHz • 0.25% DCV basic accuracy • Measure voltage, current, resistance & diode • Continuous beeper • Data hold • Auto power off • Input warning • Tilt stand with holder • Holster • 4"w x 7.5"h x 1.5"d, 1.5 lb..... **$69.99**

**DM-80** Pocket Digital Multimeter 3200 count • 32 segment bargraph • Auto/manual ranging • Auto off • Data hold • Range • Voltage, AC/DC 450V • Resistance, 30MΩ • Diode test • Continuity beeper • Over range indication • Low battery mark auto polarity • Carrying case • 2"w x 4.1"h x 0.4"d, 3.2 oz..... **$34.99**

# VELLEMAN

**DVM-810** Digital Multimeter Compact design makes this meter a perfect fit for any toolbox or even shirt pocket! It features multiple functions and an easy-to-read LCD display. • 3.5 digits • 19 ranges • Measures voltage, current, resistance, transistor and diode • Battery included..... **$9.99**

# DIAMOND ANTENNA

## SWR/POWER METERS

*(left)* Five models measure power and SWR with 5–10% of F.S. accuracy. Illuminated meter, sensor switch, LED indicator. Power ratings for intermittent operation. For continuous, ratings vary with frequency. SO-239 connectors on all except SX-1000 (type-N). 6"w x 2.5"h x 4"d, 2 lbs.

**SX-100** 1.6-60MHz, 30/300/3kW PEP... **$134.99**

**SX-200** 1.8-200MHz, 5/20/200W PEP ..... **$94.99**

**SX-400** 140-525MHz, 5/20/200W PEP.. **$114.99**

**SX-600** Dual band, 1.8-160MHz and 140-525 MHz, 5/20/200W PEP ranges..... **$169.99**

**SX-1000** Dual band, 1.8-160MHz and 430-1300MHz, 5/20/200W PEP ranges..... **$214.99**

## CROSS-NEEDLE SWR/POWER METERS

*(right)* Indicate forward/reflected power and SWR simultaneously. 50Ω impedance, SO-239 connectors, 10% F.S. accuracy, 3.3"w x 3.4"h x 3.7"d, 9 oz.

**SX-20C** 3.5-30/50-54 and 130-150MHz ranges; 30/300W. Needs 5W minimum for VSWR. **$89.99**

**SX-40C** 144-470MHz (220MHz with correction factor); 15/150W (3W minimum power)... **$79.99**


Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

# 1.8-170 MHz

**259B $239.99**

## 269 SWR Analyzer

### E-X-P-A-N-D-E-D Frequency Coverage & Added Features

### 1.8–170 MHz plus 415-470 MHz

**Looks nearly identical to, and has all the features of the 259B PLUS...**

- Covers 1.8 to 170 MHz plus 415 to 470 MHz
- Built-in CoaxCalculator™ – calculates coax length in feet given coax length in electrical degrees and vice versa, and any velocity factor (great for building matching sections and phasing lines for multiple antennas).
- New 12-bit A/D converter gives much better accuracy and resolution than common 8-bit A/D converters.

**New 1.8 to 170 MHz Range features:**

- Read Complex Impedance as series equivalent resistance and reactance (Rs+jXs) or as magnitude (Z) and phase (degrees). Also reads parallel equivalent resistance and reactance (Rp+jXp).
- Measure SWR and loss of coax with any characteristic impedance from 10 to over 600Ω, including 50, 51, 52, 53, 73, 75, 93, 95, 300, 450Ω.

**415 to 470 MHz Range features:**

- Read SWR, return loss, reflection coefficient simultaneously, and cable loss in dB and match efficiency.
- Has LCD logarithmic SWR bargraph and SWR meter for quick tuning.

**269 $319.99**

www.mfjenterprises.com

# MFJ SWR Analyzers

## ... for Serious Antenna Performance!

**You've spent a lot of time and money on your antenna system, so why not make sure it's giving you top performance? An MFJ SWR Analyzer will do that – plus, it will make you very popular because all of your Ham buddies are going to want to borrow it!**

**The MFJ 259B and 269 are complete Ham radio test stations, including – Frequency Counter, RF signal generator, SWR Analyzer, RF Resistance and Reactance Analyzer, Coax Analyzer, Capacitance and Inductance Meter & more!**

The 259B and 269 can take the frustration out of tuning your antennas for maximum performance. Gone are the days of using a conventional, sometimes questionable, SWR meter. You will no longer have to drag your rig (RF source) out into the yard. No more running in and out of the house or up and down the tower to make those seemingly endless readings and adjustments.

The 259B and 269 are self-contained and fully portable units, with built-in battery power and RF source so you can take it right to the antenna. Take one reading to get a complete picture of your antenna, and make tuning adjustments on the spot.

Operation is simple, just connect the feed line, set the bandswitch and tune the dial – just like a transceiver. All information is clearly displayed instantly on the large, easy-to-read, two-line LCD screen and side-by-side meters.

When tuning transmission lines or making up phasing harnesses for stacking antennas, you can quickly determine exact 1/4 or 1/2 wavelengths. You can also determine the velocity factor, coax cable loss, length of coax and distance to a short or open in coaxial cable.

Read SWR, return loss and reflection coefficient at any frequency, simultaneously, or inductance and capacitance at RF frequencies at a glance.

The 259B and 269 operate on 110V with the 1312D adapter ($14.99) or on 10 "AA" internal batteries, not included. For rechargebles, there is a built-in charger, MFJ's 1312D required.

All metal cabinet, 6-3/4"h x 4"w x 2"d.

### Overall, here's what you can do...

- Read antenna SWR & Complex Impedance from 1.8-170MHz with the 259B and additionally 415-470MHz with the 269. Complex Impedance can also be read as series resistance and reactance (R+jX) or as magnitude (Z) and phase (degrees).
- Find true resonant frequency of antenna.
- Trim dipoles and verticals to resonance.
- Adjust your Yagi, quad, loop and others. Change antenna spacing and height – watch SWR, resistance and reactance change instantly.
- Perfectly tune critical HF mobile antennas in seconds for top performance – without subjecting your transceiver to high SWR.
- Measure your antenna's 2:1 SWR bandwidth on one band, or analyze multiband performance over the entire spectrum.
- Check SWR outside the ham bands without violating FCC rules.
- Adjust your antenna tuner for a perfect match without creating QRM.
- Take the guesswork out of building and adjusting phasing lines, matching networks and baluns.
- Accurately measure distance to a short or open in a failed coaxial transmission line. Measure the length of a roll of coax and also determine loss, velocity factor and impedance.
- Measure frequency with built-in counter.
- Frequency counter function.
- Troubleshoot and measure resonant frequency and approximate Q of traps, stubs, transmission lines, RF chokes, tuned circuits and baluns.

## SWR Analyzer Accessories

**29C Carrying Case** – Tote your 259B anywhere with this custom carrying case. Wear it around your waist, over your shoulder, or clip it onto the tower while you work. Has back pocket for carrying dip coils and coax adapters. Special foam filled fabric cushions blows and protects unit from wear and tear. ..... **$24.99**

**39C Carrying Case** – Fits the 269..... **$24.99**

**66 Dip Meter Adapter** – For grid dip operation. Set of two plug-in coils covers 1.8-170MHz range ..... **$19.99**

**98 Accessory Pack** – Includes 39C case, 66 dip adapter and 1315 AC adapter..... **$54.99**

**99 Accessory Pack** – Includes 29C case, 66 dip coils and 1315 AC adapter..... **$54.99**

**99B Accessory Pack** – Includes 10 "AA" NiMH batteries, 29C case, 66 dip coils and 1315 AC adapter..... **$77.99**

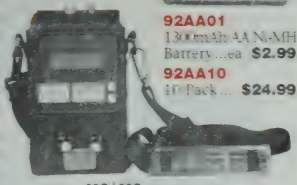
**99C Accessory Pack** – Includes 10 "AA" NiMH batteries and 1315 AC adapter..... **$34.99**

**731 Tunable Measurement Filter** – Use with 259B or 269 for accurate measurements in the 1.8-30 MHz range while in the presence of strong RF fields from nearby broadcast stations or other RF emitters ..... **$89.99**

**MFJ SuperCell**

**92AA01** 1300mAh AA Ni-MH Battery...ea **$2.99**

**92AA10** 10-Pack ... **$24.99**



29C / 39C

66

731

# MFJ ENTERPRISES, INC.

## SWR/POWER METERS

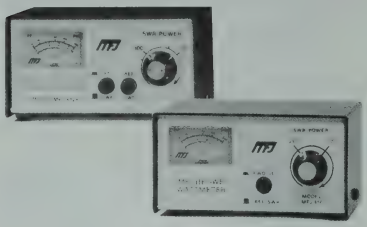
**864** (bottom) Covers 1.8-60MHz, 144MHz and 440MHz bands. Dual sensors – connect an HF and VHF/UHF rig at the same time. Monitor SWR and power of either. Lighted Cross-Needle meter indicates 30/300W forward and 6/60W reflected power simultaneously. Uses 12V DC for meter light. 7.25"w x 2.5"h x 2.25"d ..... **$84.99**

**862** (middle) Similar to 864, but for 144MHz, 220 MHz and 440MHz. Ranges: 30/300W forward and 6/60W reflected. 5.75"w x 2.5"h x 2.25"d.. **$54.99**

**860** *(top)* Similar to the 864, but covers HF 1.8 to 60MHz. Ranges: 30/300W forward and 6/60W reflected. 4.5"w x 2.25"h x 3"d ..... **$44.99**

**815B** Features large 3 in. Cross-Needle meter for accurate SWR and peak or average power readings from 1.8 to 60MHz. Ranges: 200/2000W forward and 50/500W reflected. Push button selection. 12V DC meter light. 7.25"w x 2.5"h x 2.25"d ... **$79.99**

**817** Looks and features similar to 815B but covers 144/440MHz bands. Ranges: 200/20W forward and 50/5W reflected. 7.25"w x 2.5"h x 2.25"d.. **$89.99**



**812B** (top/left) Indicates forward and reflected power on 2M/220MHz and SWR from 144–220 MHz, plus field-strength from 1–220MHz. Power ranges: 30/300W. 4.5"w x 2.25"h x 3"d..... **$34.99**

**816 Toroidal Meter** (bottom/right) Indicates forward and reflected power from 1.8–30MHz. Power ranges: 30/300W. 4.5"w x 2.25"h x 3"d..... **$34.99**

**844** VHF/UHF SWR/Power Meter Covers 144 and 440MHz, rated up to 200W. Easy to read multi-colored meter shows SWR/POWER in three ranges: 15, 60, and 200W. Insertion loss is 0.3 dB or less. Measures only 3.75"w x 3"h x 1.25"d – great to take along for portable, HT or mobile rigs ..... **$69.99**

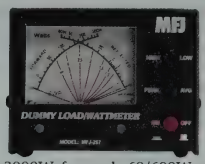
**GrandMaster™** 3.25" x 1.25" meter, forward/reflected. 3 ranges. 13.8V/110V. 7.5"w x 3.125"h x 4.25"d.

**870** (HF range) Covers 1.6 to 60MHz. Power ranges: 30/300/3000W ..... **$124.99**

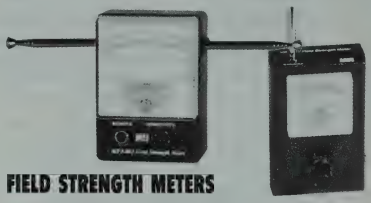
**872** (HF/VHF range) Covers 1.8 to 200MHz. Power ranges: 5/20/200W ..... **$94.99**

**873** (VHF/UHF range) Covers 125 to 525MHz. Power ranges: 5/20/200W ..... **$104.99**

**874** (HF/VHF/UHF range) Covers 1.8 to 525MHz. Power ranges: 5/20/200W ..... **$159.99**



**267 Precision SWR/Wattmeter with Dry Dummy Load** 3", lit, cross-needle meter shows true-peak, average forward/reflected power and SWR. • 1.8–54MHz • 300/3000W forward, 60/600W reflected – SWR 1:1 to 8:1 • Load-to-antenna switchable. 50Ω dummy load rated at 100W (10 min.) or 1.5kW (10 sec.). • Usable up to 60MHz • SWR 1.3:1 @ 30MHz. 12VDC lamp or 120VAC with 1312D or 9V battery. Aluminum, perforated • 4"w x 3.125"h x 10"d ..... **$139.99**



## FIELD STRENGTH METERS

**801 Super Compact Field Strength Meter** *(right)* You can read relative field strength from your antenna, measure antenna performance and discover how strong your antenna field is. Its compact size fits in the palm of your hand, only 2.375"w x 3.625"h x 1"d. Telescopic whip included ... **$19.99**

**802 Bipolar Field Strength Meter** *(left)* Dual whips are included, 2.375"w x 4"h x 1.5"d..... **$39.99**

## MISCELLANEOUS

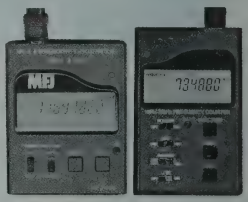
**850 Line Voltage Monitor** *(left)* Plug into any 110V AC outlet and monitor the line voltage on an expanded/colored 95 to 135V AC scale. Measures 2.25"w x 2.25"h x 1.5"d .... **$19.99**

**204B Antenna Bridge** *(right)* Quickly optimize 1.8-30MHz antennas for peak performance. Portable. Determine if an antenna is too long or short, measure resonate frequency and resistance to 500Ω. Built-in resistance bridge, null meter and oscillator driver. Requires 9V. 4"h x 2"w x 2"d..... **$79.99**

**224 2M FM SignalAnalyzer™** Measure signal strength over 60dB range, antenna gain, beamwidth, front-to-back ratio, sidelobes, feedline loss. Check and set FM deviation. Plot field strength patterns, position antenna, measure preamp gain, tune transmitters and filters. Scope to analyze modulation wave forms, measure audio distortion, noise and peak deviation. Covers 143.5-148.5MHz. Headphone jack, battery (9V) check function. 4" x 2.5" x 6.75" ..... **$149.99**

**852 Power Line Noise Meter** Sensitive (0.3 uV) superhet AM receiver with wide range noise level meter and AGC (over 70dB). Tuned to the 135MHz region. Telescopic, direction-finding dipole antenna is balun isolated and optimized to give a clearly defined null for pin-pointing sources. Plug in headphones and hear the trackable noise or plug in a tape recorder to document offending noise for playback. 9V battery. 2.8"w x 4"h x 1.5"d. **$89.99**

**805 Pocket-Sized RFI Detector** Track down and eliminate RFI caused by radiating cables and wires. Simply clamp the top mounted current transformer over suspected cable or wire (up to 1/4 inch diameter) to detect RFI causing common-mode currents. Useable from VLF to VHF. Uses 9V battery. 2.25"h x 4.75"h x 1"d ..... **$79.99**



**886 Pocket Frequency Counter** *(left)* Covers 1 MHz – 3 GHz • 300MHz direct count with 0.1 Hz resolution • 10-digit LCD • Impedance: 50Ω (VSWR @ <2:1) • Sensitivity: 0.8mV @ 100MHz, 7mV @ 300MHz, 6mV @ 1GHz, 100mV @ 2.3 GHz • 15 dBm input • Synchronous detector • RF signal strength bargraph • 4 selectable gates • 6-hour, rechargeable NiCads • AC adapter • Telescoping antenna • 2.75"w x 3.25"d x 1.25"d ..... **$109.99**

**888 Deluxe Frequency Counter** *(right)* Covers 10 Hz-3GHz • Displays frequency of local signals on 10-digit LCD • RF strength bargraph • Detects 150 MHz signals up to 150' • 300MHz direct count with 0.1Hz resolution • 4 selectable gates • Input: 50Ω (1-3MHz), 1Ω (10Hz-50MHz) • 6-hour NiCad pack • AC wall charger • BNC connector • Telescoping whip • 2.75" x 4.25"h x 1.25"d, 9 oz ..... **$174.99**

**854 RF Current Meter** A top-mounted sense coil snaps over wires, cables, etc. up to 1/2" dia. • Measures actual RF currents in antenna elements, ground wires, radials and outside of coax feedlines • Six ranges, 30mA to 3A • Accurate from 1-30MHz • Range with variable sensitivity control • Auto-off press-to-test power circuit • All-aluminum case and G-10 PC board • 2.5"w x 5.5"h x 1.5"d, 11 oz ..... **$89.99**



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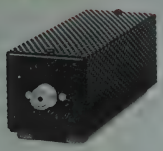
# MFJ ENTERPRISES, INC.



## DUMMY LOADS

**250 Versaload** *(right)* 50Ω oil-filled dummy load providing low VSWR to 400 MHz. Rated at 1 KW CW or 2KW PEP for 10 min., with 50% power rating for 20 minutes and 200W CW (400W PEP) continuous. 7.25"h x 6.625" diameter With oil **$59.99**

**250X** Same as above, but requires oil..... **$39.99**

**Dry Loads** *(left)* Air cooled, non-inductive 50Ω resistor mounted in a metal housing. Full rated load for 30 seconds with derating curve to 5 minutes.

**260C (HF/VHF)** Rated at 300W. 1:1 SWR to 30MHz, .5:1 to 650MHz. 2.5" x 2.5" x 7"... **$34.99**

**260CN** With type "N" connectors ..... **$39.99**

**264 (UHF)** Performs from 1.3 to 650MHz, usable to 750MHz. Rated at 1.5KW for 10-seconds and 100W for 10-minutes. 3"w x 3"h x 9"d..... **$69.99**

**264N** With type "N" connectors..... **$74.99**

## MIRAGE

**MP-3** Measures RMS, peak forward and reverse power and SWR, directly without charts or calculations • Negligible insertion loss. • 420-450MHz • 5/50/150W PEP • Remotable coupler, SO-239 connectors • Requires 9V or AC adapter • 5.75"x 4.5"w x 5.75"d, 3.5 lbs ..... Closeout **$229.99**


Secure
www.aesham.com


## YAESU

**YS-60** Monitors average (CW) and peak (SSB) transmitter power and VSWR. Covers 1.8 to 60MHz, up to 2KW. Ranges: 0/200 and 2000W PEP. 50Ω imped., SO-239 connectors. Requires 12V DC for lamps and internal circuits. 4.75"w x 2.75"h x 3.5"d, 1.5 lbs..... **$129.99**

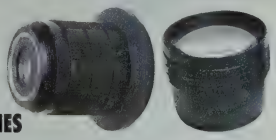
**YS-500** Similar to YS-60, but covers 140–525MHz and has 4/20 and 200W PEP ranges..... **$109.99**

## Night Owl Optics® NIGHT VISION

**NOCC-3 Cyclops Compact™** At 16 ounces, the NOCC3 compact Night Vision monocular boasts a powerful integrated infrared illuminator in one of the lightest body styles available. With easy to operate power and IR controls, both with indicator lights, the NOCC-3 is equipped with a 42mm objective operating at a 1:1.2 aperature with 3.1x magnification for quality nocturnal viewing. • Image Tube Gain: 15,000 • 628' FOV @ 1000 yards • 575' range of view • Focusing range: 8' to infinity • 2 AA batteries • 7.2" x 2.4" x 3.2" • 16 oz ..... **$139.99**

**NODS-5 Night Owl Discovery Pro™** A full-sized night vision monocular with the highest-grade 48mm camera quality objective lens providing unsurpassed resolution for distant visibility. The NODS-5 features an integrated infrared illuminator encased in an attractive, ergonomic body. Equipped with soft-touch controls, power and IR indicators and a tripod mount. • Range of view: 650' • Magnification: 5X • 80mm focal length • 524' FOV @ 1000 yards • Focus range: 10' to infinity • Uses 2 AA batteries • 7.6" x 3.4" x 2.9" • 1.5 lbs ..... **$249.99**

**NOXG-2 Explorer G2™** Cutting edge, with a technologically advanced night vision intensifier tube. Gives superior brightness and performance in low light conditions, and up to 2,300' long range of view. Compact, 100% waterproof – floats! Equipped standard with a powerful integrated infrared illuminator. • Range of view: 2,300' • Magnification: 3.0X • Field of view: 612' @ 1000 yards • Focusing range: 8' to infinity • Uses 3V lithium battery • 6.8" x 2.3" x 3.3" • 1.3 lbs..... **$899.99**



## ACCESSORIES

**NOCA-42 Camera Adapter™** *(left)* Allows photography with 35mm SLR cameras. Replaces rear ocular lens. Requires opt. T-mount adapter ..... **$39.99**

**NOLD-20 Lens Doubler™** Increases the magnification on the NOCC-3 enabling close-up viewing in the dark. Fits in front of objective lens..... **$39.99**

## CELESTRON®

**11015 Celestar 8** Engineered for optical performance in an affordable, full-featured Schmidt-Cassegrain scope with large enough aperture to do serious deep-sky observing. Features: 8" (203mm) aperture • 2032mm focal length • f/10 focal ratio • 6x30 finderscope • Standard 1.25" accessories including 25mm SMA eyepiece (81x), Star diagonal and visual back • Fork mount & wedgpod • 41 lbs... C/O **$999.99**

Take the best of the NexStar 5 and 8 to the next level with the 5i and 8i. Equipped with the electronic hand control, they allow manual slew across the sky in seconds or tracking of a star as the Earth rotates. The control also offers movement of the scopes at six different rates and has a "double button" feature to increase slew speed without changing rates. Put the power of the newest software and expanded 40,000 object database to work with the optional computerized hand control. Capable of becoming fully automatic GPS scopes with optional GPS accessory and computerized hand control.

**11033 NexStar 5i** Standard features include • 5" (127mm) diameter, 1250mm focal length, f/10 focal ratio • 60°/sec. slew • Fully enclosed HD high speed motors • Battery compartment for 8 AA's • Starbright™ coated, Schmidt-Cassegrain optics • Multi-coated, 1.25"/25mm Plössl eyepiece (50x) • StarPointer finderscope • 1.25" star diagonal • AutoGuider port • Auxiliary port for accessories • Heavy-duty base with rubber feet..... **$899.99**

**11021 NexStar 8i** Same features as 5i with • 2032 mm focal length, f/10, 8" (203mm) dia. • Multi-coated, 1.25" Plössl eyepiece (81x)..... **$1199.99**

**11052 NexStar 8 GPS** Ultimate in "go-to" technology and astro-imaging, this 8" Schmidt-Cassegrain boasts an integrated GPS and electronic compass, combined with the NexStar™ system. As it turns on, GPS/compass system automatically points to the first alignment star. Auto guider port • 2 auxiliary ports • PC port/RS232 compatible • GPS align mode • 2000mm focal length (f/10) • 5-step multi-layer StarBright® coatings • 40mm NexStar Plössl (50x) • 9x50 finderscope • Fastar compatible • External 12V DC • AC adapter..... **$1999.99**

## CELESTRON®

**11053 NexStar 11 GPS** A large aperture telescope with carbon fiber tube, integrated GPS and electronic compass. When turned on, the GPS/compass system automatically pinpoints exact location and points to the first alignment star. The NexStar offers a 40,000+ object database and storage for numerous, user-defined objects. It also features database filter limits for creating custom lists. Built with dual aluminum fork arms with carrying handles and a receptacle for computer go-to control. 279mm (11") dia. Schmidt-Cassegrain • 2800mm focal length • f/10 ratio • Premium 40mm (70x) 1.25" Plössl eyepiece • 9x50 finderscope • 9 slew speeds • Star diagonal • Visual back • RS232 and multiple data ports • AC adapter • Adjustable, 26-pound tripod • 65 lbs ..... **$2999.99**

**21016 Advanced C4-R** Designed for the more advanced astronomer, it features exquisite optics on a heavy-duty equatorial mount. The optics are made to exacting standards, with high quality materials to ensure top performance. Offers a 63% increase in image brightness over 80mm models, with the larger aperture delivering incredible images of the moon, Saturn and its ring structure, Jupiter and its belts, and hundreds of deep-sky objects; including galaxies, nebulae and star clusters • 102mm refractor • 1000mm focal length (f/10) • Mount with setting circles and slow motion cable • 6x30 finderscope • 20mm (50x) 1.25" plossl eyepiece • Adjustable aluminum tripod and accessory tray ..... **$429.99**

**21019 C6-R Achromatic Refractor** An excellent choice for the serious astronomer, the C6-R is the largest telescope in its class with over 6 times the light gathering ability of a 60mm. It features premium accessories such as a heavy duty CG-5 German equatorial mount, 9x50 finderscope with bi-directional alignment screws and a spring loaded pivot support, 20mm (60x) Plössl 1.25" eyepiece, 2" focuser and 2x Barlow with photo adapter. The new German Equatorial mount has precision worm gears on both axes for extremely smooth stability. It also has a convenient latitude scale for easier alignment and an optional polar finder scope for precision alignments. A NEW heavy-duty tripod with more substantial legs offers excellent damping characteristics. • 150mm (6.0") refractor • 1200mm f/8 focal length • Right ascension and declination setting circles • Slow motion control knobs on both axes • 1.25" star diagonal • The Sky I CD • Accessory Tray • 57 lbs **$799.99**

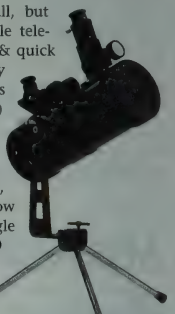
**21052 FirstScope 60AZ** *(top)* All glass components, coated optics and smooth functioning mounts, with the added benefit of slow motion controls on the mount for easy adjustments. • 60 mm (2.4") refractor • 700mm focal length, f/12 • Slow motion control rod for smooth vertical adjustments • Sturdy adjustable aluminum tripod with tray • 1.25" 20mm (35x), 10mm (70x) eyepieces • 1.5x erect image eyepiece • 90° star diagonal (1.25") • StarPointer™ finderscope • Alta-zimuth mount • The Sky 1 CD • 7 lbs ..... **$99.99**

**21086 FirstScope 80EQ** *(bottom)* A good choice for the more serious beginning astronomer. The setting circles and slow motion controls allow for greater control in both locating and tracking objects, making this equatorial telescope one you can grow with as your observing interests expand. All glass components, German equatorial mount. • 80mm (3.1") refractor • 900mm focal length, f/11 • Equatorial mount with setting circles and slow motion adjustment cables • Sturdy adjustable aluminum tripod with accessory tray • 1.25" 20mm (45x), 10mm (90 x) eyepieces • 90° star diagonal (1.25") • StarPointer™ finderscope • The Sky I CD • 18 lbs .. **$299.99**

**22062 NexStar 60GT** Views of the lunar landscape, phases of Venus, Mars resolved as a disc, Jupiter and its moons, Saturn with its rings plainly visible, some deep sky objects, plus terrestrial views. Comes with a fully-computerized hand control with database of over 4,000 objects. Includes three 1.25" eyepieces (35x, 70x and 175x). With a pre-assembled, adjustable tripod, the 60GT can be up and ready in a matter of minutes. A StarPointer finderscope with red LED makes centering easy. • 60mm (2.4") dia. refractor • 700 mm focal length • f/12 ratio • 1.25" star diagonal • *The Sky* Level I CD-ROM • 9.5 lbs..... **$249.99**

**22082 NexStar 80GT** With an 80mm aperture and 3.25° field of view, the 80GT is capable of capturing the largest deep-sky objects. 80% brighter views than 60mm. This short-tube, 400mm focal length, refractor telescope has 16x (25mm) and 40x (10mm) magnification, 1.25" SMA eyepieces. • 80 mm (3.1") dia. • f/5 ratio • "Go-to" computer hand control • StarPointer™ finderscope • 1.25" star diagonal • *The Sky* Level I CD • Adjustable aluminum tripod, accessory tray • 11 lbs..... **$329.99**

**31132 NexStar 130GT** Computerized hand control provides the ability to auto slew (9 speeds) to any of its 4,000+ database of objects, including over 600 galaxies. View details of the lunar surface, rings of Saturn, polar ice caps on Mars or a number of the Messier objects. Explore fainter objects using the light-gathering, 5" primary mirror, which gives fully color-corrected views. • 130mm (5") Newtonian reflector • 650mm focal length (f/5) • Motorized altazimuth mount • 1.25" 25mm (26x), 10mm (65x) eyepieces • Computerized hand control • StarPointer™ finderscope • NSOL control software for PC • Adjustable aluminum tripod with tray • The Sky I CD • 18 lbs..... **$399.99**



**31034 Tabletop 76** Small, but powerful, this ultra portable telescope is ideal for traveling & quick set-up. The handy but sturdy table top mount provides steady viewing. • 76mm (3") aperture • 600 mm focal length • f/8 focal ratio. Standard 0.96" accessories include: 4mm SR (150x), 20mm H (30x) and 2x Barlow eyepieces • 5x24 right-angle Finderscope • 5 lbs **$99.99**

**31044 Firstscope 114** High quality, telescope featuring an optical system for bright, detailed views. The highly stable equatorial mount (CG-3) has setting circles and slow motion controls on both axes providing smooth, easy tracking. Built to provide years of performance, it comes with adjustable, aluminum tripod and accessory tray. • 114mm (4.5") diameter aperture • 900mm focal length • f/8 ratio • StarPointer™ finderscope • 20mm (45x) and 10mm (90x) Kellner eyepieces • 1.25" focuser • 35" optical tube • Enhanced aluminum optical coatings • 1.5" rack and pinion focusing • 45 lbs..... **$249.99**

**31056 C6N** Mounted on a rigid CG-4 equatorial mount. Counterweight, latitude scale, setting circles and slow motion controls on axes are standard. • 150 mm (6.0") aperture • 1000 mm focal length • f/7 focal ratio • 1.25" accessories include: 20mm Plössl eyepiece (50x) and focuser • 6x30 finderscope • CG-4 EQ mount • Adjust-able metal tripod, accessory tray • 41 lbs ..... **$399.99**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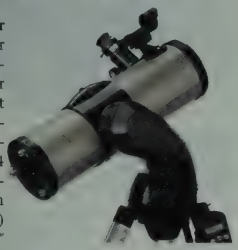
## CELESTRON®



**31142** NexStar 114GT Computer compatible Newtonian reflector with a compact design and exceptional light-gathering ability. • 114 mm (4.5") diameter • 1000mm focal length (f/9) • Starpointer™ finderscope • 25mm (40X) and 10mm (100X) SMA eyepieces • Motorized mount • Computerized hand controller with "go-to" database. Includes *GuideStar*™ software to use with your personal computer, fully assembled adjustable aluminum tripod, battery pack and *The Sky Level 1* CD-ROM... **$439.99**

## LAB GRADE MICROSCOPES

**4020 Dissecting Microscope** This provides an introduction to the world of microscopy. It uses a 45° inclined, 360° rotatable monocular head which can move up and down on the metal pillar for small or large item viewing. The eyepiece is a 10x-18mm with a 4x-58mm objective, giving 40x power. The all-metal unit comes with a 60mm black-and-white viewing plate and smooth rack and pinion focuser **$79.99**

**4030 Educational Microscope** Feature-packed and a great educational tool. It has a fully coated optical system, with H10x and H12.5x eyepieces and 35mm 4x, 10x, 40x objectives giving powers of (40x, 100x, 400x) 10x and (50x, 125x and 500x) 12.5x. This unit uses positive click stops on the turret, a five aperture diaphragm, a plano-concave 50mm mirror, and a smooth rack and pinion focuser with a safety rack stop..... **$119.99**

**4050 Biological Microscope** Using fully coated optics, with a mechanical tube length of 160mm, its achromatic objective promises great observing sessions. The unit has a monocular 45° inclined, 360° rotatable head, positive click stop nosepiece with three objectives, 4x, 10x, 40x, a metal 110mm x 120mm stage and a five aperture diaphragm. It uses coarse and fine focus with electrical illumination with a tungsten 20w bulb and .65 single lens condenser. Powers are 40x, 100x and 400x using the 10x eyepiece ..... **$199.99**

## SPOTTING SCOPES

**52200** *(top)* **60mm Pro Zoom Spotting Scope** This powerful spotting scope's large 60mm aperture makes it perfect for bird watching, photography, nature study, hunting or scenic observing. Carefully crafted, multicoated optics provide excellent contrast and clarity, and the standard lens hood reduces glare. Zoom and focus controls are exceptionally smooth, convenient and easy to use. The ability to zoom from 15 to 60 power with speed and precision means you'll be able to focus on and follow interesting subjects with ease. • 24' near focus at 15 power • 15mm eye relief at 15 power • 30° field of view at 15 power ..... **$199.99**

**52211** *(bottom)* **60mm Wildlife Zoom Spotting Scope** A great all-around optic designed to perform well in a range of viewing situations. Great for bird watching, observing nature and long distance spotting. The focus and zoom controls are easy to use and well placed for fast, convenient image acquisition. It offers long eye relief of 33mm at 15 power. With fully coated lenses, it's totally reliable and an excellent performer. • Power range that zooms from 15 to 45 power • Near focus: 42' at 15 power • Field of view: 2.25' at 15 power • Mini table tripod and carrying case included • 25 oz..... **$169.99**

## MEADE

## TELESCOPES

**0705-04-01** ETX-70AT **70mm Achromatic Refractor** Excellent portable for beginners. Observe major planets easily. Also great for birdwatchers or naturalists. • 2 eyepieces (MA 9mm/39x and MA 25mm/ 14x) • Multilayer coated, achromatic optical tube assembly (D=70mm, F=350mm f/5) • Internal flip-mirror system for either straight or 90° observing • Fork mount with electric slow motion controls, setting circles and locks on both axes • Electronic control panel • 9-speed, dual-axis motor drive system with Autostar™ control • Sidereal-rate tracking • Requires 6 AA's • Includes #882 tripod • 7 lbs..... **$319.99**

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**3514-03-20** ETX-90AT **90mm Maksutov-Cassegrain** *(left)* The perfect ultraportable field telescope. • 8x25mm right-angle viewfinder • Series 4000 Super Plossl 26mm eyepiece (1.25") • Super multi-coated optical tube assembly (D=90mm, F=1250mm f/13.8) • Internal flip-mirror system for straight or 90° observing • Fork mount with electric slow-motion controls, setting circles and locks on both axes • Electronic control panel • 4-speed (8x, 32x sidereal, 0.75°/sec, 5°/sec), dual-axis motor drive system with electronic hand controller • 8 "AA" batteries required • 19 lbs. Includes Autostar controller and tripod.. **$599.99**

**0515-03-20** ETX-125AT **138mm Maksutov-Cassegrain** *(right)* Same as above, but with larger optical assembly (D=127, F=1900mm f/15 and 8x25mm right angle viewer. Includes AutoStar controller and tripod..... **$999.99**

**20201** NGC-60 **Refractor** New Generation offers an improvement in design. Includes built-in AutoStar computer control system and manual slow-motion controls. • 60mm (2.4") diameter, f/11.7 ratio, 700mm focal length • Self-guided "go-to" control system offers 1400-object database • Altazimuth mount with slow-motion control (oversize bearings on both axes for greater stability and precision) • MA25mm and MA9mm 1.25" eyepieces • 5 x 24mm viewfinder • Hybrid diagonal • StarNavigator software • Adjustable sliding aluminum tripod with accessory shelf • Requires 2 AA batteries (not included)..... **$199.99**

**20117** DS-2114-ATS **Reflector** The Meade AutoStar control system has the commanding lead in automated telescope technology. Control system includes AutoStar with 9-speed controller and "go-to" capability to any of over 1400 celestial objects. Includes internalized motors, cords, gears and battery compartment (requires 8 AA batteries). • 114mm (4.5") diameter • f/8.8 ratio • 1000mm focal length • 2" focuser • New streamlined, single-tine fork altazimuth mount provides smoother more rigid motions in altitude and azimuth • MA25 mm and MA9mm 1.25" eyepieces • 1.25" and 2" eyepiece holders • 6 x 30mm viewfinder with rubber eyecup • StarNavigator software • Quick release adjustable aluminum tripod ..... **$399.99**

## TELESCOPE ACCESSORIES

**07137** Plössl 5mm (1.25") O.D. eyepiece. **$59.99**
**07139** 8mm WA (1.25") eyepiece ..... **69.99**

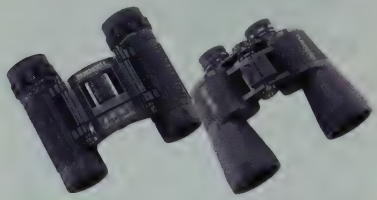
# BUSHNELL®

## BINOCULARS

**Powerview®** Truly the "best of both worlds." Contemporary styling and design combined with legendary Bushnell quality and durability. The easy-to-hold and easy-to-use aspect of these binoculars also converge to make Bushnell Powerview binoculars an excellent value for the general and outdoor user. Powerview comes with soft rubber covering and the patented "Insta-Focus®" system. Each binocular comes with a neck strap and carrying case.

**13-1226** *(left)* Compact binocular with folding roof prism. Designed in camo. Features include: 12x25 magnification • 240 ft. field of view at 1000 yds. • 2.1mm exit pupil • 9.7oz..... **$29.99**

**13-0430** *(right)* **LiteVision™** • 4x30 magnification • 650 ft. field of view at 1000 yds. • 7.5mm exit pupil • 7.5oz ..... **$13.99**



**13-1250** *(right)* **InstaFocus®** • 12x50 magnification • Porro prism • 265' field of view (1000 yds.) • 4.2 mm exit pupil • Adapts to tripod • 27oz... **$59.99**

**13-2514** *(left)* Compact, folding binocular • 8x21 magnification • Roof prism • 375 ft. field of view at 1000 yds. • 2.6mm exit pupil • 7oz..... **$21.99**

**Falcon** is feature packed and value priced. Perfect for sporting events, sightseeing, nature study, backpacking, concerts and theater. The line includes the Bushnell patented InstaFocus® focusing system, coated optics, carrying case and strap.

**13-0721** *(right)* Compact binocular featuring 7x21 magnification • Porro prism • 340 ft. field of view • 3mm exit pupil • 4.7oz..... Closeout **$24.99**

**13-3410** *(left)* **InstaFocus®** • 7x35 maginifcation • Porro prism • 420' field of view (1000 yds.) • 5mm exit pupil • Adapts to tripod • 21oz..... **$29.99**

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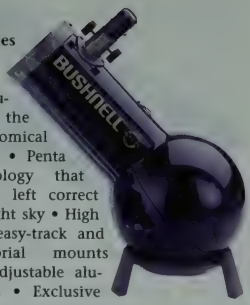
## TELESCOPES



**Voyager® Series** Engineered to exacting standards with exclusive features: the first astronomical zoom telescope • Penta mirror technology that yields right to left correct views of the night sky • High quality metal easy-track and metal equatorial mounts • Innovative adjustable aluminum tripods • Exclusive rotary power turret eyepieces.

**78-2010** Penta mirror technology that yields right to left correct views • High quality metal easy-track and metal equatorial mounts • Exclusive rotary turret eyepieces • 100 x 4.5" reflector • Focal length: 500mm • 5 and 27mm Plossl eyepieces • Magnification: 18 and 100 • 1.25" format eyepieces • Precision rack and pinion focuser • Convenient shoulder strap • Pre-assembled cradle mount • Camera and tripod adaptability..... **$179.99**

**78-9470** *(top)* 60mm refractor • Focal length: 750 • Zoom, 8, 15mm eyepieces • Magnifications: 50, 94, 50-150, 250, 470 • Penta mirror • Easy Track® mount • Adjust. tripod ..... **$129.99**

**78-9675** *(bottom)* 4.5" reflector • Focal length: 900 • 4, 12, 20mm eyepieces • Magnifications: 45, 75, 135, 225, 675 • Clock drive equatorial mount • Adjustable aluminum tripod • 6-point finderscope mount • Fine tracking ..... Closeout **$199.99**

## TELESCOPE ACCESSORIES

**(See Price Guide to match accessories to correct telescope model)**

**78-0101** 1.25", 9mm Kellner eyepiece..... **$29.99**
**78-0102** 1.25", 25mm Kellner eyepiece... **$29.99**
**78-0103** 1.25" format erecting prism ..... **$69.99**
**78-0105** 1.25" format 2x Barlow lens..... **$39.99**
**78-0106** Clock drive (DC/battery power) **$89.99**

## MISCELLANEOUS

**26-3150 NightVision Binocular** (Generation 1) Great for wild-life observation, maritime navigation, security or camping. Built-in infrared illuminator for enhanced images in very low light. Powered by a single CR123A battery. • Magnification x objective lens: 3.1 x 50mm • Range: 1.5 to 400 ft. • 79 ft. field of view @ 100 yds • Includes tripod mount • 7.9" x 6.45" x 2.7", 40 oz.... **$459.99**

SPEEDSTER

**10-1907 Speedster™ Speed Gun** Multi-functional, for all kinds of sports enthusiasts! Tracks miles, or kilometers, per hour of everything from pitching speeds, tennis serves and downhill racers to cars at the race track. Measures the speed of a baseball at 6-110mph from over 90 feet away and the speed of a race car from 6-200mph at over 1300 feet away. Displays current, last and average speeds. Tracks baseball statistics for up to 8 pitchers. Features highly legible, 4-row LCD graphics display, trigger and 2-way button pad ..... **$199.99**

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## MFJ ENTERPRISES, INC.

**105C 24 Hour Quartz Wall Clock** Black, 10" diameter face, sweep second hand. Uses one "AA" battery..... **$19.99**

**Small 24-Hour Clocks** A dual clock with separate UTC and local time display modules, and a single clock with 24 hour time only. Heavy brushed aluminum frame, 5/8" high LCD numerals, sloped face. Flashing seconds colon, battery included.

**107B** *(left)* **Single**, 2.25"w x 1"h x 2"d..... **$9.99**

**108B** *(right)* **Dual**, 4.25"w x 1"h x 2"d..... **$19.99**

**112B DX'ers World Map Clock** Shows time at any QTH througout the world on an attractive LCD world map. Also shows day, month, date and year. Choose 12 or 24 hour. Daylight saving time feature. Grey, cool bile backlight for night viewing 4.25"w x 3.3"h x 2.25"d..... **$24.99**

**113 12/24 Hour Desk Clock** Switchable 12/24 hour display • 9-minute ID timer • Alarm function • 9V battery back-up for power failures • 110 VAC, 60Hz • 9"w x 4"h x 2.5"d..... **$19.99**

**115 WORLD Map 24 hour Quartz Wall Clock** Set it to GMT and you'll know what time it is in designated areas of the world any time of day. Premier cities outline the trim of the 12" diameter. Operates on "AA" battery (not included).. **$24.99**

**116DC** 12 VDC, 12 Hour LCD Travel Alarm Clock Great for motor homes and truckers! Green 5/8" LED digits show 12 hour time format. Ten minute ID buzz, two-level alarm (100dB - high) low/high @ 110dB) 9V back-up battery. Power cord with cigarette lighter adapter attached. Compact, 4.5"w x 2"h x 4"d, 17 oz. Closeout **$9.99**

**118 Jumbo LCD™ 24 or 12-hour clock** 1.25" high with high contrast LCD. Shows year, month, date and day in four different languages. Includes 100 year calender and flip stand. Uses one "AAA" batt. (not incl.). 5.75"h x 3.375"w x 0.5"d ..... **$24.99**

**123 Eternity Atomic Clock™** Solar powered and automatic time set by radio signals received from WWVB. Large (6.75"w x 2"h) LCD display, selectable 12/24 hour time format, digital calender. Ordinary room light powers the solar cells and also replenishes a built-in rechargable battery; also uses (2) "AAA" batteries (not included) for back-up power. Metallic tan, 9"w x 3.5"h.. **$79.99**

**125 DXer's Dream 24-hour Quartz Wall Clock** 12" diameter face shows 24 hour format with smaller day, date and 12 hour indicators. All dials set independently as desired. Uses a single "AA" battery (not included)..... **$29.99**

## Benjamin Michael Industries INC.

**973A** Battery operated 24-hour quartz controlled clock with sweep-second hand. 12" dial allows excellent visability. Black textured case and glass crystal. Uses AA battery (not incl.). 14" dia. x 1.75"d.. **$49.99**

**972AD** 14" dia., 12/24 hr. wall clock, sweep-second hand. Uses "AA" battery (not included).... **$32.99**

## RCA

**RP-3710 Dual Wake Digital Tuning AM/FM Clock Radio** Two independent "wake time" readouts – display indicates both time settings • Graduwake™ ramp-up alarm • Snooze • Large, backlit LCD wih brightness control • 11 presets – mix AM/FM stations plus your choice of 1 preset wake station. Sleep to one station, wake up to another • 9V back-up battery (not included) holds time and alarm settings in memory for 8 hours • Operates on 2 AA batteries, included • 5.25"w x 4"h x 3.75"d ..... **$24.99**

## CSI® CONNECT SYSTEMS INC.

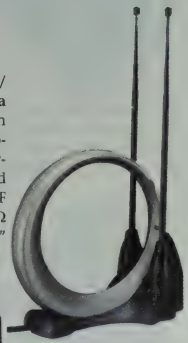
### INTERCONNECTS

Fully automatic interface between an FM base radio and phone line to initiate and receive phone calls on a mobile or HT. Each contains powerful, microprocessor-controlled features such as 90 memory speed dialer, redial, built-in programming keyboard and digital readout, remote base mode, regenerated tone or pulse dialout, CW ID and toll restrict.

**CS-800 Full Duplex Interconnect** Operates full or semi-duplex and also has a built-in repeater controller. Simply connects to transceiver mic and speaker jacks. FCC and DOC approved. 12-15 VDC. 7.875"w x 7.5"d x 2"h, 2.5 lbs..... **$369.99**

**CS-900 Control Station Simplex Interconnect** For use with any simplex transceiver. Also use thru remotely located repeaters (from base) for added range. Digital voice delay standard. Connects to mic and speaker jacks of simplex transceiver. FCC and DOC approved. Looks like CS-800. (Transceiver switching speed does not affect performance) 12-15VDC 7.9"w x 7.5"d x 2"h, 2.5 lbs..... **$369.99**

## RCA



**ANT-1020 VHF/UHF/FM Indoor TV Antenna** Contemporary design with no-scuff pad to protect cabinet tops. • 39-inch retractable and adjustable dipoles • UHF loop • Integrated 75Ω hook-up cable with "F" connector..... **$19.99**

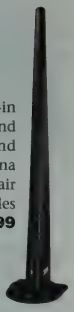
**TA-25 Eagle Aspen™ TV Distribution Amplifier** Excellent for home and small MATV systems! UHF, VHF, FM • 54-890MHz • Low noise, typ. 6-7dB • 25dB gain • Switchable FM trap • Lightning protection • 6"w x 3"h x 1.75"d • 117 VAC, 4.5W ..... **$19.99**

**STD BLK/GOLD** or **STD OAK/GOLD** A framed, lighted world map which is a continuous belt of mylar film in constant motion synchronized with Earth's orbit. Displays current time world-wide, sunrise/set, and current season everywhere via an illuminated pattern • Allows for calculation of time in non-standard zones • Shortwave radio prefixes • Standard model in black or oak with gold trim • 3' x 2', wall mounting ... **Drop Shipped $999.99**

Available by Special Order in numerous trims/finishes, and in 3 other models (with analog 0-60 min. scale).

TERK

## STEREO ANTENNAS



**AF-9330 AM-FM Tower Antenna** Built-in amplifier with gain contol improves AM and FM reception. Works with tuners and receivers with 75Ω or 300Ω FM antenna inputs. The AM connection consists of a pair of wires with U-clips. Useful 30-40 miles from the broadcast transmitter ..... **$24.99**

**AM-1000 External AM Antenna** A passive, adjustable 530-1600kHz AM antenna that improves reception over built-in loops. It is used unattached, next to the radio. Position for best reception, then rotate the tuning dial located at the center of the antenna to match the AM frequency tuned in on the radio. For best performance, it may be connected directly to an external AM antenna input..... **$49.99**

**PI-B Powered Indoor AM/FM Antenna** Improves FM (88-108MHz) performance by eliminating multipath interference and providing amplification from the built-in low-noise preamplifier with gain control. An adjustable position AM loop provides great broadcast band reception. FM output impedance: 75Ω (300Ω with supplied matching transformer), AM: 300Ω. 6"h x 6"w x 1.5"d. AC power adapter included ..... **$49.99**

## TV ANTENNAS

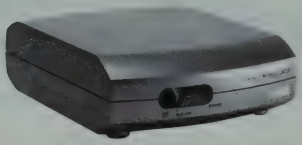
**TV-42 Amplified Clip-On Antenna** Attaches quickly to any 18" satellite dish and adds reception of all local VHF/UHF channels. Covers channels 2-83 and FM broadcast. Built-in internal 10dB gain amplifier to minimize signal loss, allowing distribution to multiple TV's. For Dual-LNB dishes, it has two built-in diplexers, providing more than one TV with DSS and VHF/UHF signals. Powered thru the cable by a DSS receiver. Durable, powder-coated element and weather-proof amplifier housing. 10.25"h x 21.25"w x 3.5"d ..... **$59.99**

**TV-55 Amplified Out/Indoor TV Antenna** Uses a helical, coiled broadband single element engineered for clear, powerful reception of HDTV broadcasts. Receives both UHF and VHF frequencies from 54-806MHz. Built-in ultra-low noise 10dB amplifier can be switched in or out for best reception. Mounts in or outdoors. Includes a 12V adapter and mounting hardware. 46"w x 3.5"h x 2.25"d..... **$89.99**

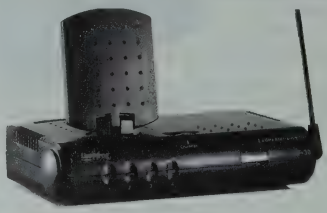
## TV, A/V ACCESSORIES

**MOD-41 RF Modulator** Connect up to four A/V sources to any TV with no available A/V input jacks. Similar to VS-MOD4 below, without S-Video jacks or IR remote control. 6.5"w x 2"h x 4.25"d **$39.99**

**VS-4MOD RF Modulator-Plus** Allows connections of multiple A/V components to a TV with no available A/V (RCA) input jacks. Provides inputs for up to four A/V sources (video games, DVDs, PVRs, VCRs, satellite receivers and camcorders). Converts A/V sources to VHF for viewing on channel 3 or 4 on any TV. Compatiblle with your IR remote control to remotely switch between A/V sources. Has "F-type" antenna/cable inputs and RCA/S-Video input/output jacks. 9.75"w x 2"h x 5"d. AC wall adapter included ..... **$49.99**



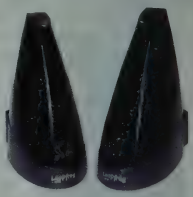
**VR-1 TV Volume Regulator** Delivers a consistent audio level during commercial breaks, while channel surfing or changing between A/V sources. Advanced DSP automatically adjusts sound levels while noise reduction reduces any 'hiss' present in audio and articulates quiet scenes to a level that you can enjoy. Simple plug and play, one time installation. 3.18"w x 3.87"h x 1.43"d ..... **$49.99**



**LF-30S Leapfrog WaveMaster 30 Transmitter/Receiver System** An easy-to-use, cost effective alternative to purchasing multiple A/V components. Allows remote control use of A/V signals from one source, such as a TV with satellite or DVD player, to another within your home. Transmits a 2.4GHz band and penetrates walls, doors, ceilings and floors. Built-in IR extender enables use of existing or universal remote to control the system. Built-in modulator ensures connection to old and new TV's. 1.5"h x 7"w x 4.8"d ..... **$99.99**

We accept I.M.P.A.C.® Government Credit Cards

**LF-20 Leapfrog Wavemaster 20 System** Complete transmitter/receiver system that transmits picture and sound from satellite TV, cable, VCR and DVD connections to other TV's to anywhere in the home without wires. Advanced 2.4GHz delivers clearest picture and sound up to 100' away. It features both standard RF connectors and coaxial (RCA) jacks, for connection to any type of TV, as well as audio or A/V components. A/V cables and AC wall adapters included. 3.625"w x 1.625"h x 5.25"d ea..... **$79.99**



**LF-IRX Leap Frog Remote Control Range Extender** Increase capability of infrared remote controls. Provides the power to operate A/V components through walls and floors up to 100'. Operates on 418 MHz for wireless install. Simply plug base in near controlable unit, then plug the receiver in remote location. Cables and AC adapters included. 5"h x 2.5"w x 4"d ea..... **$39.99**

**TSP-6 Surge Protector** Protects satellite, antenna, cable, and phone lines from surge and spike damage while providing constant EMI/RFI noise filtering for 8 AC outlets. Automatically shuts off if protection fails. • Resettable circuit breaker • Surge and ground protection LEDs • 6' power cord with slim-line plug, 6' TV/satellite and phone cables • Rated 125V @ 15 amps..... **$29.99**

TVGuardian™

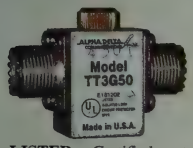
**TV GUARDIAN Foul Language Filter** Easily connects between a television and VCR. It continually monitors closed-captioning embedded in the video signal and references each word against an internal offensive-word-and-phrase directory. Audio is muted on detection of a match. It also removes the word from closed-captioning and replaces it with a profanity-free version. Off, tolerant and strict mode settings. Off, display text during mute only and full closed-captioning caption options. All settings and connections are capable of being secured under lock and key..... **$89.99**


Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

# Effective Atmospheric Surge Voltage Protection!

Dangerous static charges measuring 1000s of volts can be developed from local thunderstorms, high wind driven snow or sand; so potent they can actually puncture the dielectric of coaxial cable. Solid-state transceivers and other equipment in your hamshack are very vulnerable to these high-voltage charges so you should take every precaution to protect your equipment and shack from possible serious damage... and ALPHA DELTA has the answer!

Special Arc-Plugs are used in ALPHA DELTA's Coax Switches, Surge Protectors and DELTA-C Center Insulator which "bleed off" slow rising static electricity charges from the feed line, routing them harmlessly to ground. This is far more effective than DC grounded baluns or chokes. But, even as effective as these devices are, you still need to pay attention to proper grounding procedures as outlined in the ARRL Handbook and other technical publications.




## Lightning Surge/EMI Protectors

**UL LISTED** – Certified protection for your equipment from lightning and static charges much more effective than low-cost air-gap types.

The heart of this protector is an Arc-Plug™, two electrodes hermetically sealed in a gas filled ceramic cylinder. Acting like a voltage dependent switch, the Arc-Plug™ can repeatedly carry large currents for brief periods of time. If an excessive voltage appears on the feedline line, due to lightning or static charges, the Arc-Plug™ is energized, forming a momentary arc and discharge to ground which protects your valuable equipment from damage.

After repeated zaps, the Arc-Plug™ may need replacing as indicated by an increased VSWR or reduced receive signal strength. A top mounted "O" ring sealed knurled knob allows easy access and replacement of the Arc-Plug™ without tools.

If you are running control voltages through the coax, the impedance compensated thru-line cavity design allows it to pass thru, instead of having to "wire around" as with some other DC-blocked designs.

**Wide Frequency Range:** DC thru 3 GHz, much wider than narrow band DC blocked or stub designs.

**Low Insertion Loss:** 0.1dB @ 1 GHz, 0.2dB @ 2 GHz, and only 0.5dB @ 3GHz, typical.

**ATT-3G50*** has Type-N females connectors, rated up to 3.0 GHz and 200 Watts ..... **$59.99**

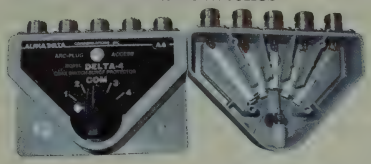
**ATT-3G50U*** has UHF female connectors, rated up to 500MHz and 200 Watts..... **$49.99**

**2000 Watt version available at No Extra Cost – specify **ATT-3G50HP** or **ATT-3G50UHP***

## PathFINDER
## Digital Auto Tuner

The ONLY automatic antenna tuner on the market that has front panel switching and circuitry for BOTH Hi-Z (wire-type antennas) and Low-Z (coaxial fed antennas) and full Digital Readout for SWR, power and tuner functions. Huge 10:1 tuning range will match a wider variety of antennas than "built-in" tuners. Covers 1.8 thru 30 MHz plus 6 meters. Requires 12VDC @ 1 amp. .....**$399.99**

## Lightning Surge Protected Coaxial Switches




- High Quality custom design featuring a rugged Cast Aluminum Housing.
- Constant impedance micro-strip cavities that provide very low-loss and high isolation through the UHF frequencies.
- Solid, positive switching
- Rated for Full Legal power.
- A solid positive detent roller bearing switch snaps positively into each position.
- An Alpha Delta Arc-Plug™ Cartridge provides continuous surge protection. If needed, it is easily replaced from the front without disassembly.
- Automatic grounding of the unused antennas to reduce antenna interaction, noise and the effects of lightning.

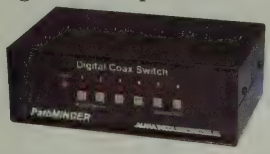
**DELTA-2** 2-position, with SO-239 connectors and rated for operation up to 500MHz ..... **$49.99**

**DELTA-2/N** 2-position, with N-type connectors, rated for operation up to 1.3GHz ..... **$64.99**

**DELTA-4** 4-position, with SO-239 connectors, rated for operation up to 500MHz..... **$79.99**

**DELTA-4/N** 4-position, with N-type connectors, rated for operation up to 1.3GHz..... **$89.99**

## PathMINDER
## Digital Desktop Coaxial Switch




A six-position Digitally Controlled coaxial switch. It can switch up to 6 coaxial outputs with the press of soft-touch front panel buttons. Heavy-duty Internal relays handle up to 1500W with very little insertion loss over the 1.8 thru 54 MHz range. Uses SO-239 type connectors. A big features is that it will not "hot switch" at RF levels above 50W protecting relay contacts or equipment from damage. A microprocessor monitors a radio sensing input and will automatically ground ports, with several grounding options. Requires 12VDC @ 250 mA ... **$149.99**

## Limited Space Slopers

- Proven 1/4-wave sloper DX Performance
- Alpha Delta "ISO-RES" inductors replace lossy traps and capacitors, handles Full Legal Power.
- Factory assembled using insulated #12 copper wire, stainless hardware and 50 ft. of nylon rope.
- Direct 50Ω coaxial feed, no tuner required. Go to **www.alphadeltacom.com** for sloper installation.

**DX-A** A top performing 1/4-wave Twin Sloper 160, 80 and 40 meter DX antenna. Combines the DX firepower of the 1/4-wave sloper with the wide bandwidth of a 1/2-wave dipole. Installs like an Inverted-V. Legs are 67 ft. and 55 ft. long ..... **$59.99**

**DX-B** A single wire high performance 1/4-wave DX Sloper with for 160, 80, 40 and 30 meters. Installs like 1/2 of an Inverted V. Convenient limited space installation requires only 60 ft. of space for amazing DX performance with the feed-end at 35 ft. and the low end only 8 ft. above ground ... **$69.99**

## Shortened Multibanders

- Alpha Delta "ISO-RES" inductors replace lossy traps and capacitors, rated Full Power.
- Direct 50Ω coaxial feed, no tuner required except for extended frequency coverage.
- Factory assembled with insulated #12 copper wire, stainless hardware and 50 ft. of nylon rope.
- Uses a DELTA-C Static Protected center insulator and DELTA-CIN end insulators.
- Install Horizontally as an Inverted-V.

**DX-CC** 80-40-20-15-10M, 82 ft. long.....**$119.99**

**DX-DD** 80-40M, 82 ft. long ..... **$89.99**

**DX-EE** 40-20-15-10M plus 30-17-12M using a wide range antenna tuner, 40 ft. long..... **$99.99**

**DX-LB** 160-80-40M, 100 ft. long. Typical bandwidth for 2:1 VSWR: 160M (20kHz), 80M (40kHz), 40M (300kHz). Full band coverage using a wide range antenna tuner .....**$119.99**

**DX-LB PLUS** Same as DX-LB above, but adds 20-10M with parallel wires ..... **$149.99**

## Full-Size Monoband Dipoles

- 50Ω coax feed, no traps, handles Full Power
- Install Horizontally or as an Inverted V
- Rugged, full-size performance
- Factory assembled with #12 insulated copper wire, DELTA-C static protected center insulator, DELTA-CIN end insulators and includes 50 ft of nylon support rope.

**DX-80** 75/80 meters, 134 ft. long ..... **$49.99**
**DX-40** 40 meters, 67 ft. long ..... **$39.99**
**DX-20** 20 meters, 34 ft. long ..... **$39.99**

# OUTbacker The Performance Antenna

## We Make it Simple ... But GOOD!

Most mobile antenna installations are notoriously inefficient and complex to install. Some are so big and cumbersome, they need guy ropes and special mounts to handle the wind load when under way. Some are single band only, others need a bag full of resonators for multi-band operation. Whips with automatic tuners or "screwdriver" types are nice, but even more cumbersome to install, usually requiring extra wiring and a controller.

The OUTbacker eliminates these "big antenna" problems while providing efficient, multi-band performance in a rugged, lightweight, single whip design. Its sleek, low profile design allows use with standard 3/8-24 bases and trunk-lip mounts.

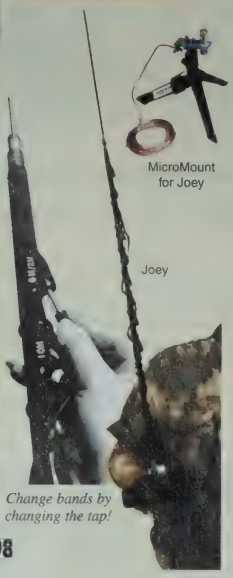
Fiberglass shaft construction, using a pre-tuned copper helical winding with clearly marked brass band taps at points along its length. A final coating of smooth epoxy resin and polyurethane, gives the OUTbacker a toughness and durability not found in other brands, while making a really good looking mobile installation.

Changing bands is a snap; simply plug into the desired band tap and resume operating without changing whips, resonators, or retuning.

| MODEL | BANDS | POWER | LENGTH | PRICE |
|---|---|---|---|---|
| **OB-8** | 75-10M + WARC | 300W P.E.P. | 6 ft. | **$279.99** |
| **OB-8HP** (HIGH POWER) | 75-10M + WARC | 500W P.E.P. | 6 ft. | **$299.99** |
| **OB-S8*** | 75-10M + WARC | 300W P.E.P. | 6 ft. | **$299.99** |
| *Breaks down into two 3 ft. sections, includes a cloth carrying pouch | | | | |
| **OB-8TRI** Same as OB-S8 except it breaks down into three 2 ft. sections, pouch included | | | | **$329.99** |
| **PERTH*** | 75-10M + WARC | 150W P.E.P. | 7.5 ft. | **$289.99** |
| *The Most Efficient model for HF Mobile | | | | |
| **PERTH PLUS*** | 75-10 + 6/2M + WARC | 150W P.E.P. | 6 ft. | **$299.99** |
| *Perfect for HF Radios with added 6 & 2 meter capability | | | | |
| **STEALTH PLUS*** | 75-10 + 6/2M + WARC | 100W P.E.P. | 4 ft. | **$269.99** |
| *Perfect for HF Radios with added 6 & 2 meter capability | | | | |
| **OUTREACH*** | 160-10M + WARC | 300W P.E.P. | 12 ft. | **$399.99** |
| **OUTREACH 500*** | 80-6M + WARC | 600W P.E.P. | 12 ft. | **$439.99** |
| *OUTREACH and OUTREACH 500 perfect for use with the OUTPOST, below | | | | |
| **OB-M*** | Marine/HAM* | 300W P.E.P. | 6 ft. | **$399.99** |
| *Marine: 2.182, 4.1, 6.2, 8.2, 12.4, 16.5, 22 MHz • HAM: 75, 40, 20, 17, 10M | | | | |
| **Joey*** | 80-2M + WARC | 20W P.E.P. | 50 in. | **$249.99** |
| *Improves portable perrformance of FT-817 and other QRP rigs. | | | | |

**ALP MicroMount** Desktop tripod for Joey, 8 in. tall with 12 ft. counterpoise **$49.99**

**OUTPOST Base Tripod Mount** for mobile antennas. Pictured with OUTbacker antenna installed, described below. Tripod only, antenna is not included ..... **$199.99**




*Change bands by changing the tap!*

## The OUTbacker/Outpost Tripod Antenna System

### The Ideal Condo, Limited Space Antenna System Providing Incredible DX Performance!

- A convenient method of utilizing OUTBACKERS for Base/Portable operation.
- The OUTbacker **Outreach** (12 ft. tall, 160-10 meters, 300 watts PEP) or the **Outreach 500** (12 ft. tall, 80-6 meters, 600 watts PEP) and the matching Alpha Delta Outpost ground coupler tripod comprise the system.
- Virtually unseen by your neighbors but provides efficient, world class "fixed station" performance.
- Users report multi-band DXCC and WAZ results. On-site comparisons with several large commercial "no radial" trap verticals (your neighbors can see those) have shown that the OUTbacker/Outpost combination works the same or better in most cases. High efficiency comes from careful design with center and 5/8-wave loading over a 12 ft. length and effective use of exclusive band taps. No control wires or motors are required as in some other designs.
- Adding to the efficiency of the system is the "ground coupling" of the Outpost tripod. Its precision designed 36 in. long x 3 in. wide "platypus" ground feet on each leg form a large capacitor with the earth, providing spectacular efficiency and coupling.
- No radials, cement mounting or tools are required. Just unfold and go! No other base provides such a level of ground coupling or ease of use. Install on patios OR in yards. Even the shorter OUTbacker models perform well on the Outpost.
- Compact, fold-up design sets up quickly and collapses in seconds; no holes, no concrete!
- A mobile-type mount on top accepts a standard 3/8-24 antenna stud and PL-259 connector.
- A fold-over top bracket, allows the antenna to be easily removed or folded down for changing bands, or to be out of view.
- Rugged 6061-T6 aircraft aluminum members,18 lbs. Stainless steel hardware and wing nuts, comes all assembled.

**www.alphadeltacom.com**

# MFJ ENTERPRISES, INC.

## HT RANGE EXTENDERS

**1714 Long Ranger™ 2M Halfwave** For really long range, this MFJ end-fed half-wave is hard to beat. It out performs a 5/8 wave on a handheld because it does not need a ground plane. The 1714 is shorter (40" extended), lighter, has more gain & places less stress on your antenna connector. When collapsed (10.5"), it performs like a rubber duck ... **$16.99**

**1712 Dual Bander™ 2M and 440MHz** New dualband handheld or separate units? One antenna fits all. It's 1/4 wave for 2m and 5/8 wave with gain for 440MHz. 7.25" collapsed, 19" extended..... **$14.99**

**1710 Pocket Linear™ 3/8 Wave, 2M** Carry in your pocket like a ballpoint pen. When using your rubber duck, on the fringe and noisy, put on the Pocket Linear, extend to 24.5" and carry on your QSO. Pocket clip. 5.25" collapsed..... **$9.99**

## RUFFRIDER™ MOBILE ANTENNAS

(mounts not included)

This series features quality construction using precision machined components. Designed to battle the elements, rugged rides and highway abuse.

Dual band 144/440MHz mobiles have stacked stainless steel elements with high-Q phasing coils resulting in outstanding gain. Phased radiators flatten radiation patterns and concentrate transmit power at the horizon for maximum distance.

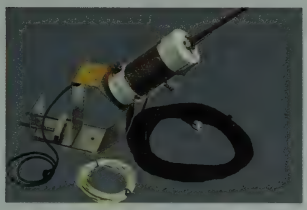
All models are factory tuned for SWR less than 1.5:1 and have 50Ω impedance. Each comes w/SO-239 base, but also includes a **FREE** NMO adapter.

**1402 Junior** 16.5" antenna fits in any garage on any vehicle. Unity gain on 2M, 3dB gain on 440 MHz. Handles 100W. No fold-over ..... **$34.99**

**1412 High Power** Only 40" long but handles a full 200W. Great for high power mobile & amp. 3dB on 2M, 5.5dB on 440MHz ..... **$49.99**

**1422 High Gain** 41.5" long giving you extra gain with little increase in height. Handles 150W. 3.2dB on 2M, 5.7dB on 440MHz..... **$49.99**

**1432 Highest Gain** Tall 62.5" brute gives you a whopping 5dB gain on 2M, 7.6dB gain on 440MHz. Handles 150W..... **$69.99**



**1622 Apartment Antenna** *(top)* Operate 40–10M, 6M and 2M, up to 300W P.E.P. Tuning is accomplished by changing the tap on the highly efficient air-wound coil and adjusting the counterpoise for best SWR. Its universal mount/clamp lets you easily attach it to window frames, balconies and railings. It also works great indoors mounted to a desk, table or bookshelf. The 5.5' radiator collapses to 2.5' for easy storage and carrying. It includes 50' of coaxial cable, RF choke balun, 50' of coax, counterpoise wire and safety rope..... **$89.99**

**1624 HF Mini Bugcatcher** Operate 40–6M, up to 300W P.E.P. Tune by changing the tap on the efficient air-wound coil and adjusting the counterpoise for best SWR. The 5.5' whip collapses to 2.5' for storage or avoiding a garage door. Use trunk lip, mirror, luggage or tri-mag mount ..... **$79.99**

**1778 All-Band G5RV Antenna** Center fed, 102' flat top with a 300Ω twinlead feeder system and SO-239 connector to accept the 52Ω coax run from the shack. This unique design covers all bands 80 thru 10 meters with a nominal VSWR, so using an antenna tuner is recommended with most rigs. Also can be installed as an inverted vee or sloper. Works great on 160 meters operating as a Marconi with tuner and good ground. Handles 1500W..... **$39.99**

**1910 Telescoping Fiberglass Mast** *(right)* Great for portable and temporary use – traveling, camping, hotels, hamfests, field day, DX-peditions. Use to construct loops and quads. Pull out each section and twist to lock, strong fiberglass, flexes to resist breaking. Extends to 33' and collapses to 3.8' Bottom section 1.75" diameter. 3.3 lbs ..... **$79.99**

**1899T Walkabout™ Multi-band Telescopic Antenna** Designed specifically for the Yaesu FT-817 multi-mode HF/VHF/UHF portable transceiver or other QRP portables. Covers all bands (including WARC bands) from 80 to 6 meters. Power rating is 25 Watts. When fully extended it is just over 5' long and is fitted with a BNC connector. Band changing is achieved by plugging a lead into the appropriate socket on the base coil, and fine tuning using the 10-section telescopic whip. The whip unscrews from the base matching coil, so, collapsed, the antenna measures only about 8 inches ..... **$129.99**

**MFJ Manually Tuned Screwdriver Antenna** Small and lightweight, supplied with a 4.5' telescopic whip for mobile and a 10' telescopic whip for greater efficiency stationary use. Quickly and easily tuned by sliding the aluminum cover over the coil. Copper beryllium finger stock completely surrounds the coil for solid connection as tuning is accomplished. Unused turns on the antenna are shorted out and completely shielded. Once tuned, a nylon tipped thumbscrew locks the cover in place to prevent movement. The 4.5' whip collapses to 23", the 10' whip to 19". Coil and whips can easily be packed into a backpack for hiking or camping. A standard 3/8" x 24 male mount in the base makes it easy to connect to existing mount.

**1661** 20-6M, 12", 1 lb..... **$119.99**

**1664** 40-6M, 15",1.25 lbs ..... **$159.99**

NEW

**1020C Indoor Active Antenna** 300 kHz–30MHz; 5 bands. Telescoping (21") antenna provides good signal strength. Functions as a preselector when using an external antenna – minimizes intermod, improves selectivity, reduces noise. Uses 9V battery, 9-18V DC or 110V. 5"w x 2"h x 6"d..... **$79.99**

**1024 Outdoor Active Antenna** For 50kHz to 30 MHz reception. Separate RF amp module with 54" whip mounts outside, interconnect made by supplied 50' coax to control unit, containing gain control and 20dB attenuator. Select between 2 receivers & auxiliary antenna. Auxiliary in/output jacks. 12VDC or 110VAC. Control: 6"w x 2"h x 5"d, Module: 3"h x 4"w x 4"d..... **$129.99**

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## Miracle Antenna

**MIRACLE WHIP All-Band, Rig-Mounted, Tunable Whip** For the FT-817, and other QRP (5W) or SWL rigs. The Miracle Whip is the only completely self-contained, all-band 57" telescoping whip antenna with integrated tuner for receiving and transmitting that mounts right on a radio's antenna connector. Continuous tune 0.6 to 500 MHz rx and continuous tune 3.5 to 460MHz tx. The continuously variable auto transformer design operates effectively without any added counterpoises as the continuously variable nature permits finding a good match when there is no "standard" counterpoise attached. In effect, it uses whatever ground paths are available as a counterpoise..... **$119.99**

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## HAND TUNED ANTENNAS FOR HANDHELD RADIOS

Each Smiley antenna is individually tuned to resonance at band center under normal operating conditions (no ground plane, no radials). They're manufactured from the finest heat-treated copper plated spring steel coils. Cold rubber compound is used for coil insulation with a neoprene heat-shrink coating applied for strength and endurance. All have BNC connectors.

**TS Thin Stick** 1/4-wave telescoping dual band antenna for 144 and 220MHz bands ..... **$16.99**

**SS-II Super Stick II** *(A)* 2M, 5/8-wave, flexible base loaded telescoping antenna. 6-9db gain fully extended. Usable fully collapsed, or one section 1/4 wave. 54" extended, 10" collapsed..... **$19.99**

**SS-II/COMBO Super Stick II Combo** Same as above, but includes a 2m stubby duck..... **$26.99**

**5/8 SLD-2** 5/8 **Slim Duck** *(B)* 2m, 5/8-wave, 7db gain, flexible base loaded ant. 12" long .... **$17.99**

**5/8 SLD-2 COMBO** 5/8 **Slim Duck Combo** As above, but includes a 2m stubby duck..... **$24.99**

**RD-2 Regular Duck** *(C)* For 2m. Tuned ducks show a 3db gain over other rubber ducks because they are *impedance matched* for HTs..... **$14.99**

**RDS-2 Stubby Duck** *(D)* Tuned, for 2m.. **$14.99**

**SS-III Super Stick III** 220MHz 5/8-wave, flexible base loaded telescoping antenna. 6-9db gain extended; usable collapsed, or a one-section 1/4-wave. 36" extended, 8¾" collapsed..... **$19.99**

**SS-III/COMBO Super Stick III/Combo** As above, but incl. a 220MHz stubby duck ..... **$26.99**

**5/8 SLD-220** 5/8 **Slim Duck** *(E)* 220MHz, 7db gain, flexible base loaded 9" antenna..... **$17.99**

**5/8 SLD-220 COM** 5/8 **Slim Duck Combo** Same as above, but includes a 220MHz stubby duck antenna ..... **$24.99**

**RD-220 Reg. Duck** *(F)* 220MHz, tuned... **$14.99**

**RDS-220 Stubby Duck** *(G)* As above..... **$14.99**

**SS-IV Super Stick IV** *(H)* 440MHz 5/8-wave, flexible telescoping ant. 6-9db gain extended; usable collapsed. 18" extended, 5¾" collapsed..... **$19.99**

**SS-IV/COMBO Super Stick IV Combo** Same as above, plus has 440MHz stubby duck..... **$26.99**

**SL-440 Slimline** *(I)* 440MHz, ¼-wv. flex. **$12.99**

**5/8 SLD-440** 5/8 **Slim Duck** *(J)* 440MHz, 7db gain, flexible base loaded 5" antenna..... **$17.99**

**5/8 SLD-440 COM** 5/8 **Slim Duck Combo** As above, plus has a 440MHz stubby ..... **$24.99**

**RDS-440 Stubby** *(K)* 440MHz, tuned..... **$14.99**

**RDMD-440 Mini Duck** *(L)* As above ..... **$14.99**

**FLX 1/2 WAV-2M Flex-Coil** *(M)* 2M, 1/2-wave, 7-9dB gain, flexible base, 35" fully extended **$25.99**

**270A** *(N)* Telescoping 2m/440 gain antenna. 1/4-wave (2m) 5/8-wave (440MHz). The 270A is also available with SMA ..... **$19.99**

**TAQ** 1/4-wave whip antenna, specify for 2M, 220 or 440MHz .....each **$10.99**

## Arrow Antenna

**146/437-10** KK5YY, pictured at the left, working VE6EGN on the AO27 satellite using a Yaesu VX-1R, with 500mW output, connected to an Arrow 146/437-10. The Arrow is designed specifically to allow portable satellite operation using just an HT. Meaning, it's engineered to provide maximum gain and efficiency within a small size and weight. The boom construction is 3/4" square aluminum stock, 37.5" long with a foam grip on the back end for comfort. The three VHF and seven UHF Gamma matched elements with separate BNC connectors are aluminum arrow shafts which are strong and lightweight, and plastic tipped for safety ..... **$73**

**146/437-10BP** Split boom model..... **$79**

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# PREMIER communications

RD-78 RD-8 RD-98 RD-9 AL-800

## HANDHELD ANTENNAS

**RD-2 Short Duck Antenna** *(not pictured)* Perfect fit for the new micro-sized handhelds such as the VX-1R, VX-5R, IC-Q7A, etc. Only 2" tall, but gives big performance. Operates on both 2M and 440MHz and also works great for out of band scanning. BNC connector ..... **$14.99**

**RD-2SMA** Same as RD-2, SMA connector **$15.99**

**RD-78 Extended Duck Antenna** 15" tall, provides an improvement over stock, steel, spring-type antennas. Hit local repeaters solidly, access distant machines, talk extended simplex. Has 2.5dBi gain on VHF, 3.2dBi on UHF. Also includes 800/900MHz receive capability. Flexible, but doesn't droop. Gold-plated BNC connector ..... **$19.99**

**RD-8 Duck Antenna** 6.5" tall and very flexible. Improves your signal over any manufacturer's stock duck. The perfect companion to any 2M/440MHz handheld, including those with 800/900MHz receive. Gold-plated BNC connector..... **$14.99**

**RD-98 Thin Whip Antenna** A 2M/440MHz HT antenna that is 17" long with a diameter of only 1/16th of an inch. Made of extremely strong and very flexible material – ties in a knot without damage! BNC connector..... **$24.99**

**RD-98SMA** Same as RD-98, SMA conn ... **$27.99**

**RD-9 Flexible Duck Antenna** An extremely flexible 7" tall rubber duck that will improve handheld performance on both 2M and 440MHz. while providing 800/900MHz receive capability. Connector is protected by a moisture shield and is molded to sit firmly on the connector, preventing excessive wear and tear. BNC connector ..... **$18.99**

**RD-9SMA** Same as RD-9, SMA conn..... **$20.99**

**AL-800 Telescoping Antenna** Useful whenever you need extra performance for satellite work, or when on the fringes of a repeater. Telescopes to 34" or collapses to 10". Has 3.2dBi gain on VHF, 5.5dBi on UHF. For convenience and/or shorter range operation, the telescoping section unscrews and may be replaced with the included 9" rat tail. Gold-plated BNC connector..... **$29.99**

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BR-200 Professional-Grade SWR/Antenna Analyzer




Perform SWR and impedance measurements with confidence! The BR-200 is a laboratory grade precision test instrument providing a wide-band RF signal source for analyzing antenna systems and other equipment without the need for a separate transmitter. • 1.8-170MHz • High precision meter • 500mW 50Ω dummy load included • Impedance: 12.5 - 300Ω • Connector: SO-239

COMET & Maldol

# Dualband and Multiband Base Antennas





**Wi-Fi/802.11b/LAN Access Point Antennas**

COMET **GP-15** • Tri-band 52/146/446MHz Base Repeater Antenna
Gain & Wave: 52MHz 3.0dBi 5/8 wave • 146MHz 6.2dBi 5/8 wave x 2 • 446MHz 8.6dBi 5/8 wave x 4 • Max Pwr: 150W • Length: 7'11" • Weight: 3lbs. 1oz. • Conn: Gold-plated SO-239
• 2MHz band-width after tuning (6M) • Construction: Single-piece fiberglass

COMET **CX-333** • Tri-band 146/220/446MHz Base Repeater Antenna
Gain & Wave: 146MHz 6.5dBi 5/8 wave x 2 • 220MHz 7.8dBi 5/8 wave x 3 • 446MHz 9.0dBi 5/8 wave x 5 • Max Pwr: 120W • Length: 10'2" • Weight: 3lbs. 1oz.
• Conn: Gold-plated SO-239 • Construction: Fiberglass, 2 Sections

COMET **GP-3** • Dual-band 146/446MHz Base Repeater Antenna
Gain & Wave: 146MHz 4.5dBi 6/8 wave • 446MHz 7.2dBi 5/8 wave x 3 • Max Pwr: 200W • Length: 5'11" • Weight: 2lbs. 9ozs. • Conn: Gold-plated SO-239 • Construction: Single-piece fiberglass

COMET **GP-6** • Dual-band 146/446MHz Base Repeater Antenna
Gain & Wave: 146MHz 6.5dBi 5/8 wave x 2 • 446MHz 9.0dBi 5/8 wave x 5 • Max Pwr: 200W • Length: 10'2" • Weight: 3lbs. 8ozs. • Conn: Gold-plated SO-239 • Construction: Fiberglass, 2 Sections

NEW

Maldol *NEW* **HVU-8** Ultra-compact 8 band HF/VHF/UHF vertical antenna
80/40/20/15/10/6/2M/70cm Only 1/2 the traditional size and weight of vertical HF antennas, and it includes 2M/70cm! Unique radial system rotates for balcony installations, the radials can all be rotated to one side. • HF and 6M: 1/4 wave-length • Gain 2M: 1/2 wave-length, 2.15dBi • Gain 70cm: Two 5/8 waves in phase, 5.5dBi • Impedance: 50 Ohm • Max Power: HF 200W SSB • 6M–70cm: 150W FM • Conn: SO-239 • Height: Only 8'6" • Weight: 5lbs. 7ozs.

COMET **GP-9/GP-9N** • Dual-band 146/446MHz Base Repeater Antenna • BEST SELLER!
Gain & Wave: 146MHz 8.5dBi 5/8 wave x 3 • 446MHz 11.9dBi 5/8 wave x 8 • Max Pwr: 200W • Length: 17'8" • Weight: 5lbs. 11ozs. • Conn: GP-9 Gold-plated SO-239 • GP-9N Gold-plated N-type female • Construction: Fiberglass, 3 Sections

COMET **GP-24** The standard high gain 2.4GHz access point antenna for maximum range/signal strength • 2400-2500MHz • Gain: 15.4dBi • Length: 5'10" • Weight: 2lbs. 9ozs. • Conn: Gold-plated N-female • Construction: Heavy-duty white fiberglass radome

COMET **GP-24-3** The same physical high gain 2.4GHz antenna as the GP-24, but with a 3-degree electrical downtilt to concentrate the signal to the horizon and below **Special Order**

COMET **GP-24-S** Medium gain access point antenna for applications where maximum distance is not as important as a solid signal around and directly below the antenna. • Gain: 9.9dBi • Length: 3'9" • Weight: 1lb. 14ozs. • Conn: Gold-plated N-female • Construction: Heavy-duty white fiberglass radome




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## HF/Multiband Mobile Antennas

NEW

**Maldol NEW MH-511** • Tri-band 6M/2M/70cm HT Antenna • Length: 4" • Conn: Male SMA

**Maldol MH-510** • Tri-band 6M/2M/70cm HT Antenna • Gain: 0/0/3.2dBi • Length: 20.75" • Conn: Male SMA

**COMET HT-224** • Tri-band 2M/220/70cm HT Antenna • Gain: 1.3/1.4/1.8dBi • Length: 11.5" • Conn: Male SMA

**Maldol MH-610** • Tri-band 2M/220/70cm HT Antenna • Gain: 0/1.8/3.2dBi • Length: 14" • Conn: Male SMA

NEW

**Maldol NEW EX-510B/EX-510BNMO** • Tri-band 6M/2M/70cm with fold-over •Gain & Wave: 52MHz 1/4 wave 146MHz 2.15dBi 1/2 wave 446MHz 3.0dBi 5/8 wave x 2 VSWR • Length: 37" • Conn: PL-259 or NMO style • Max Power: 50W FM

NEW

**COMET** • Tri-band 6M/2M/70cm with fold-over •Gain & Wave: 52MHz 0dBi 1/4 wave • 146MHz 4.5 dBi 6/8 wave • 446MHz 7.2dBi 5/8 wave x 3 • Length: 58" • Conn: PL-259 • Max Pwr: 120W

NEW

**Maldol NEW** • Quad-band 10M/6M/2M/70cm with fold-over hinge • Gain & Wave: 10M & 6M 1/4 wave 2M 2.15dBi 1/2 wave 70cm 5.5dBi 5/8 wave x 2 • Length: 55" • Max Power: 10M 120W SSB 6M/2M/70cm 100W FM • Conn: PL-259

**COMET** • HF/6M/2M/70cm Mobile Antenna *80/*20/*17/40/15/10/6/2M/70cm Mobile antenna with fold-over hinge • Gain & Wave: 2M 2.15dBi 1/2 wave • 70cm 5.5dBi 5/8 wave x 2 • VSWR: HF 1.6:1 or less, 6M-70cm 1.5:1 or less • Length: 44" (min), 78" (max) • Max Pwr: HF 120W SSB, 6M 200W SSB/100W FM, 2M/70cm 100W FM • *L-14 optional 20M coil • *L-18 optional 17M coil • *L-3,5 optional 75/80M coil • Features: • 6M/2M/ 70cm operation is constant. You CHOOSE the HF coils you want to add, up to four stock or optional. One vertical, the rest horizontal. • Easily mounts to standard trunk/door mount in minutes • Economical • Fold-over hinge built in • Select the duplexer or triplexer for your specific radio(s). CF-706A, CF-530, CFX-514N.

Fold-Over Position

NEW

**Maldol NEW** • *40/20/15/10/6/2/70cm Mobile antenna with fold-over hinge • Gain & Wave: HF 1/4 wave 2M 2.15dBi 1/2 wave 70cm 3.0dBi 5/8 wave x 2 • VSWR: HF-6M 1.6:1 or less 2M/70cm 1.5:1 or less • Length: 66" • Max Power: HF 120W SSB 6/2/70cm 150W FM *NH-C7 optional 40M coil

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# Go Mobile!

## get there with COMET & Maldol Dualband Antennas

**COMET BNC-24** • Dual-band 2M/70cm HT Antenna
Gain: 2.15/3.5dBi • Length: 17" • Conn: BNC
*Super flexible featherweight whip*

**COMET SMA-24** • Dual-band 2M/70cm HT Antenna
Gain: 2.15/3.5dBi • Length: 17" • Conn: SMA
*Super flexible featherweight whip*

**Maldol MH-209** (BNC Conn) • 2M/70cm Dual-band HT Antenna
**Maldol MH-209SMA** (SMA Conn)
Gain & Wave: 0 1/4 wave • Length: 3" Soft flexible rubber

**NEW Challenger Series**
COMET'S Newest Mobiles!
Sleek, Super-Flexible,
Dark Chrome Finish

**NEW APEX Series**
MALDOL'S Newest Mobiles!
Bright Chrome and Brushed
Aluminum Finish!

**NEW** • Dual-band 2M/70cm
Gain & Wave: 2M 1/4 wave • 70cm 5.0dBi 9/8 wave • Length: 21" • Conn: PL-259 • Max Power: 60W

**NEW** • Dual-band 2M/70cm w/fold-over
Gain & Wave: 2M 1/2 wave center load 3.2dBi • 70cm 5/8 wave x 2 5.7dBi • Length: 30" • Conn: PL-259 • Max Power: 60W

**NEW** • Dual-band 2M/70cm w/fold-over
Gain & Wave: 2M 1/2 wave center load 3.3dBi • 70cm 5/8 wave x 2 5.8dBi • Length: 38" • Conn: PL-259 • Max Power: 60W

**NEW** • Dual-band 146/446MHz cellular look-a-like
Gain & Wave: 146MHz 0dBi 1/4 wave, 446MHz 2.15dBi 1/2 wave • Length: 12" • Conn: B-10 PL-259/B-10NMO NMO • Max Pwr: 50W

• Dual-band 146/446MHz
Gain & Wave: 146MHz 2.15dBi 1/4 wave, 446MHz 3.8dBi 5/8 wave center load • VSWR: 1.5:1 or less • Length: 18" • Conn: PL-259 or NMO Style • Max Pwr: 60W

**NEW** **BNMO** • Dual-band 146/446MHz
Gain & Wave: 146MHz 2.6dBi 1/2 wave, 446MHz 4.9dBi 5/8 wave x 2 • VSWR: 1.5:1 or less • Length: 29"
• Conn: PL-259 or NMO Style • Max Pwr: 100W

**SBB-5NMO** • Dual-band 146/446MHz w/fold-over
Gain & Wave: 146MHz 2.5dBi 1/2 wave • 446MHz 5.5dBi 5/8 wave x 2 • Length: 39" • Conn: SBB-5 PL-259/SBB-5NMO NMO • Max Pwr: 120W

**COMET SBB-7/SBB-7NMO** • Dual-band 146/446MHz w/fold-over
Gain & Wave: 146MHz 4.5dBi 6/8 wave • 446MHz 7.2dBi 5/8 wave x 3 • Length: 56" • Conn: SBB-7 PL-259/SBB-7NMO NMO • Max Pwr: 70W

**NEW** **COMET NEW C757/C757NMO** Challenger Series • Dual-band 146/446MHz w/fold-over
Gain & Wave: 146MHz 2.15dBi 1/2 wave, 446MHz 5.5dBi 5/8 wave x 2 • VSWR: 1.5:1 or less
• Length: 38" • Conn: PL-259 or NMO Style • Max Pwr: 80W

**COMET NEW CP-5M/5NMO/3/8-24**
*Universal mount and coax cable combos.* (SO-239, NMO, 3/8-24/PL-259) Heavy-duty, adjustable RS-730 trunk/van/ SUV/truck door mount and deluxe cable assembly. 16' 6" length w/18" mini RG-188A/U type coax. Max antenna 70". 3 different models.

**NEW** **COMET NEW C767/C767NMO** Challenger Series • Dual-band 146/446MHz w/fold-over
Gain & Wave: 146MHz 3.5dBi 1/2 wave center load, 446MHz 6.0dBi 5/8 wave x 2 center load • VSWR: 1.5:1 or less
• Length: 40" • Conn: PL-259 or NMO Style • Max Pwr: 80W


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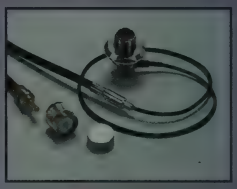
# COMET & Maldol specialists in "No Holes Mobile Mounts!"

*Combine the coax style and length you need with a bracket from below. (assemblies also available with N-connectors)*

COMET **3D5M/3D4M** Standard low loss cable assembly. Gold plated SO-239/PL-259 connectors. 17' length/13.5' length.



COMET **CK-3M5/CK-3M** Deluxe cable assembly 17' length including 17" of RG-188A/U for easy entry from a lip mount without causing water leak, wind noise or coax damage. CK-3M 9'9" total length.

**CP Series Universal Lip Mounts**

Four adjustment planes, four large setscrews holds them securely in place on virtually any lip 1/4" thick or less. Use on trunk lids, van doors, truck doors, hoods etc. 16' 6" of deluxe coax cable including 18" of mini RG-188A/U style for easy entry thru the weather seal without causing wind noise, water leaks and/or wind noise.

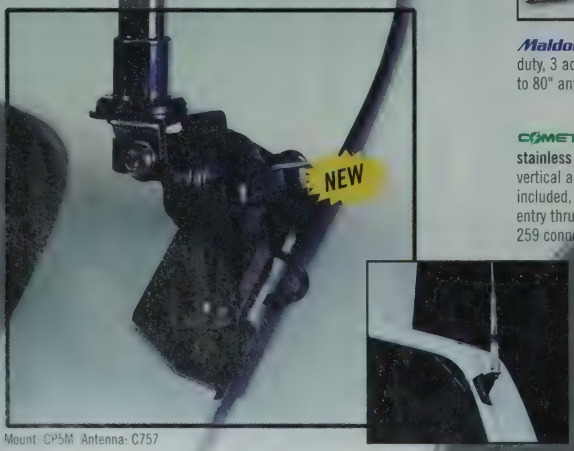
Max antenna size: 70"/16 ozs

Max Power: HF 130W VHF 75W UHF 45W

COMET *NEW* **CP-5NMO** Universal lip mount with coax, NMO and PL-259 connectors.

COMET *NEW* **CP-5 3/8-24** Universal lip mount with coax, 3/8x24 threaded stud and PL-259 connectors.

COMET **CP-5M** Universal lip mount with coax, SO-239 and PL-259 connectors.




Mount: CP5M Antenna: C757

*Choose the bracket that best fits your antenna and vehicle. All have multiple adjustments and fit virtually any lip 1/4" thick or less. Soft rubber protects the vehicle paint.*

COMET **RS-720C** Heavy-duty, 4 adjustment planes, up to 70" antenna.

COMET **RS-720/ RS-720NMO** Med-duty, 3 adjustment planes. up to 60" antenna. NMO mount version.

COMET **RS-520** Light-duty, 3 adjustment planes, up to 45" antenna.

Maldol **PRM-T** Heavy-duty, 3 adjustment planes, up to 80" antenna.

Maldol **MK-30H** 12VDC motorized mount. Mounts to vertical or horizontal door lip. Up to 70"/19 oz. antenna.

Maldol **EM-B80** Light-duty, 2 adjustment planes, up to 40" antenna.

COMET **GR-5M** **Trunk lip mount, low-profile, stainless steel.** Offset washers provide up to 17 deg vertical adjustment of antenna. 16'9" of deluxe cable included, 18" of mini RG-188A/U style coax for easy entry thru the weather seal. Gold-plated SO-239/PL-259 connectors.

**The rear doors on newer trucks are the perfect place to mount antennas: • No holes to drill • Above roof line • Easy access**

**When mounting to a van, SUV, truck, etc., use the CP-5M or build your own system with components shown above. There are several mount sizes, coax diameters and coax lengths from which to choose.**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## Lakeview Co., Inc.

**WD4BUM HAMSTICKS® Two-Piece Monoband Mobile Antennas** Hamstick 75 thru 10 meter models consist of a 47 inch long x 1/2 inch diameter fiberglass base section with the loading coil wound over its length and covered with black PVC shrink tubing. It's fitted on one end with a 3/8" X 24 brass base fitting that fits most amateur mobile mounts. A black 48 inch tempered stainless steel whip telescopes into the top of the base section and provides for frequency adjustment. The 6 meter model has a 34 inch base section and whip. Convenient frequency vs length graphs are included with the instructions.

If the antenna shows a SWR of 1.5 to 1 or better, no matching should be necessary. However, if it is, which may be especially true on 40 and 75m, you can capacitively match the base using values recommended in the instructions. If you frequently change bands you can use the **WD4BUM INDUCTI-MATCH (IM-1)** which consists of an impedance matching coil that simply installs at the base of the antenna. Using the supplied clip lead, you just tap up the coil for the best match.

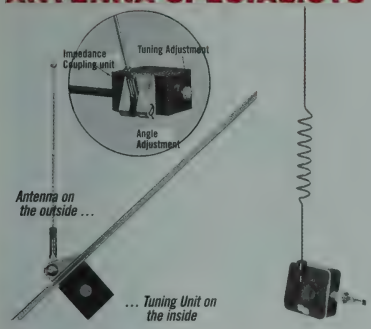
**Models**

| | | |
|---|---|---|
| **9106** (6M) | **9110** (10M) | **9112** (12M) |
| **9115** (15M) | **9117** (17M) | **9120** (20M) |
| **9130** (30 M) | **9140** (40M) | **9175** (75M) |

All Hamsticks ..... each **$24.99**

**901 Dipole Mount** for 2 Hamsticks ..... **14.99**
**IM-1 Inducti-Match** ..... **17.99**
**TM-1 License Plate Mount** 3/8" x 24... **44.99**
**TM-1 PLUS License Mount** SO-239... **44.99**

## ANTENNA SPECIALISTS




### "ON-GLASS™" MOBILE ANTENNAS

No holes to cut! The small tuning unit attaches to glass inside the vehicle and couples capacitively through the glass to the radiating element mounted on the outside. Installs with easily-removable adhesive. Includes adhesive, 15' coaxial cable with PL-259 connector • 50W • 144-174MHz (APR-151.3), 138-150MHz (APR143) • 6MHz, tunable bandwidth • Less than 1.5:1 VSWR • 50Ω nominal impedance • Electrical 1/2-wave radiator • Shunt fed, DC ground coupling unit • 33" (APR-151.3) 23" (APR143) stainless steel, black DURACOAT™ finish whip • 15' RG-58/U cable with PL-259

**APR-151.3** *(left)* 2m, on-glass, 33" high... **$69.99**
**APR143** *(right)* 2m 23" cell look-alike..... **$69.99**

## PAR

### OMNIANGLE ANTENNAS

10/6/2M, 220, 440 MHz (fixed/mobile). Complement to high-gain directional arrays, allowing all-direction local work and monitoring. Outperform halos, loops and turnstiles! Longer than halfwave dipoles. Coupled with a unique shape, yield a horizontally-polarized antenna (pattern within 0.8dB of a circle, exhibits wide bandwidth). Rated at 150W, their built-in matchbox and current balun allow feeding with 52Ω coax. Virtually eliminates detuning due to moisture. Stackable for 3–6dB omni-directional gain and lower radiation angle.

**OA-28** 10m, 28–30MHz ..... **$74.99**
**OA-50** 6m, 49.5–54MHz ..... **69.99**
**OA-144** 2m, 138–150MHz ..... **54.99**
**OA-222** 222–224MHz..... **54.99**
**OA-432** 420–450MHz..... **54.99**

**Stacking Harnesses for Two** Belden 8213 and silver/gold/teflon connects, 70cm uses N-connectors.

**SK-50** for OA-50 ..... **$36.99**
**SK-144** for OA-144 ..... **34.99**
**SK-432** for OA-432, type-N ..... **54.99**

**SM-50 Stressed Moxon 6M Antenna** Occupies approximately 1/2 the footprint of traditional two-element yagis, yet has nearly identical electrical specifications. The radiator material selection results in a further reduction in size and weight over classical Moxons. Once the coupling unit is installed onto the main radiator using two #10-32 screws, assembling the rest of the antenna, including mast mounting and tuning, requires no tools. Ideal for mountain topping, roving and stealth operation. • Horizontal polarity • Forward Gain: 5.8 dBi • F/B Ratio: 17 dB • Design Z: 50Ω unbalanced • V.S.W.R. BW: 1.5MHz between 1.5:1 points • 1kW power handling • 6061-T6 aluminum, fiberglass, genuine Flex Weave wire, stainless steel • Rectangular 84 x31", 3lbs..... **$79.99**

## AOR®

**LA-350 Active Shortwave Loop** Two 12" diameter interchangeable antenna elements cover 3.0 to 9.0 and 9.0 to 30MHz. Rotates to enhance reception and null unwanted interference. Built-in 13.5 dB gain amplifier and tuning control to peak performance. Supplied with two elements, AC adapter, instruction manual and 20 inch cable with BNC connector.....**Milwaukee only $299.99**

## ANTENEX®

**Phantom®** Whipless design! They don't look like antennas. Attract less attention, less vandalism and have lower wind resistance. Less susceptible to damage by trees, garages, etc. Requires NMO mount.

**TRAB-1420 VHF** Covers 142-164MHz (tunable), Black radome is 3.30 in. high. Unity gain . **$59.99**
**TRAB-4303 UHF** Covers 430-450MHz. Black radome is 3.30" high. 3dB gain ..... **$29.99**

**BB-1443 VHF Wideband Antenna** Base loaded 5/8 wave. Covers 144-174 MHz, 3 dB gain, 49 in. tapered whip. Requires NMO mount. (Black) **$39.99**

**CWB-4405C UHF Wideband, Self Tuning** Closed coil collinear. 440-470 MHz, 5dB gain, 32-1/8" tapered whip. Requires NMO mount. (Black) **$49.99**

**CWB-1443 VHF 5/8-Wave Broadband, Self Tuning** 144-156MHz, 3.0 dB, 47" tapered whip. (Black).. **$49.99**

**BB-1442N Broadband, 5/8-Wave No Ground Plane** Base loaded, 144-174 MHz, 2.4dB, 49" tapered whip .**$39.99**

**BB-4303 UHF 5/8-Wave** Covers 430-450MHz, 3dB gain, 11.81" straight whip. Requires NMO mount. (Black)..... **$34.99**

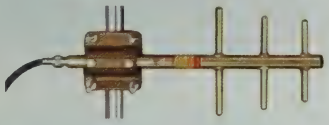
**AB-FT Broadband 1/4-Wave** Tunable 118-896 MHz, unity gain, NMO..... **$16.99**

**AB-SCANC Scanner Antenna** Closed coil collinear for 150/450/800MHz receive only. Requires NMO mount. (Black) ..... **$29.99**

**CB-144/440C Dualband VHF/UHF** Closed coil collinear covers 144-148, 440-450MHz, 2/5dB, 200W. Requires NMO mount. (Black)..... **$49.99**

### GPS ANTENNA

**GPSU-15GBNC** GPS Antenna Low profile magnetic base GPS antenna with 14 ft. RG-174/U coax and BNC connector..... **$99.99**



### GOLD-ANODIZED, WELDED DIRECTIONAL YAGIS

Computer optimized and internally matched - wide bandwidth no tuning. End-of-boom N connector feed with an internal transmission line feeding the driven element.

**Y-1363 3-Element VHF** Covers 136-150MHz, 7.1 dBd, 17 dBd front-to-back ratio. Rated for 500W. Mounts on mast up to 2" diameter ..... **$119.99**

**Y-4303 3-Element UHF** Covers 430-450MHz, 7.1 dBd gain, 17 dB front-to back ratio. Rated for 300W. Mounts on mast up to 1-5/8" diameter ..... **$99.99**

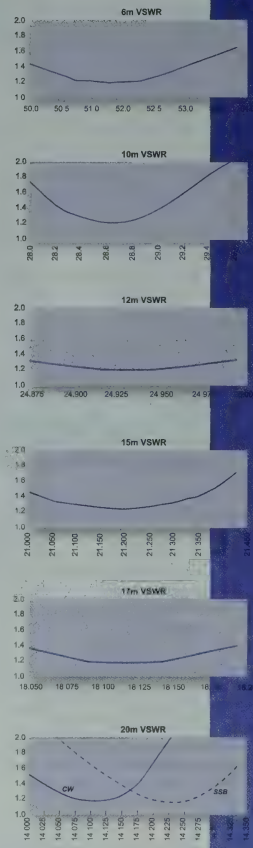
# R6000 MULTIBAND VERTICAL

6 - 20 Meters

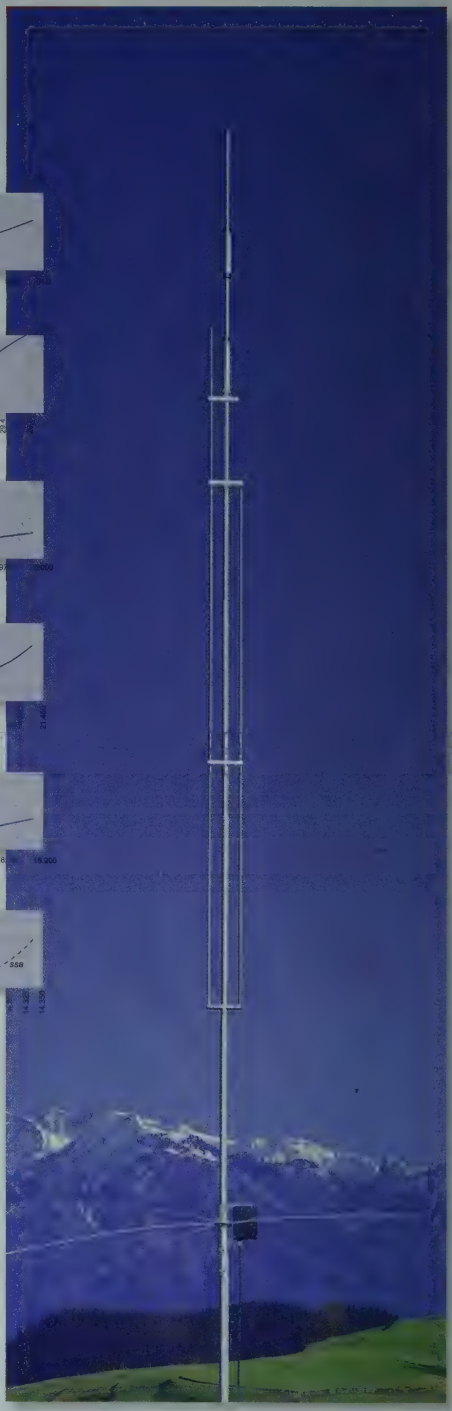
## The Shape of Things to Come

The R6000 is a 6 through 20 meter, no ground radial antenna. It includes many of the features of the R8, R7 and R5 antennas. R6000 means excellent performance, easy installation and use, slim silhouette and high reliability. There are no traps used on 6, 10 and 15 meters for maximum efficiency and power handling.

- **EASY INSTALLATION**
  For typical use, tuning is not required
- **AUTOMATIC BAND CHANGING**
  To any band 6 through 20 meters
- **SLIM SILHOUETTE**
  Gain favor of family and neighbors with the slim, low profile of the R6000
- **6 METER OPERATION**
  Join the fun of the "Magic Band" and take advantage of the new HF/50MHz tranceivers
- **AFFORDABLE PRICE**
  Cushcraft delivers the best quality and performance at a price no one else can match.




| SPECIFICATIONS | R6000 |
|---|---|
| Frequency, meters | 6, 10, 12, 15, 17, 20 |
| Gain, dBi | 3 |
| VSWR minimum | 1.2:1 typical |
| 2:1 bandwidth, KHz | 6m >1300 |
| | 10m >1700 |
| | 12m >100 |
| | 15m >450 |
| | 17m >100 |
| | 20m 300 |
| Power ,Watts output | 1500 |
| Radiation angle, deg. | 16 |
| Horizontal rad, deg | 360 |
| Height, ft (m) | 19 (5.8) |
| Mast size range, in | 1.5 -1.75 |
| (cm) | (3.8-4.4) |
| Wind load, $ft^2$ ($m^2$) | 1.5 (.14) |
| Weight, lb (kg) | 12.5 (5.6) |



The R6000 employs quarter wavelength stubs on 10 and 15 meters to replace standard trap coils. The result is lower loss and wider bandwidth. The R6000 covers all bands 6 through 15 meters at a VSWR under 2:1. On 20 meters you can select the top 300 KHz or bottom 300 KHz of the band.

The R6000 weighs only 12-1/2 pounds (5.6 kg). It is lightweight and easy to mount for portable or permanent installations. Machined aluminum clamps and UV stable insulators guarantee years of reliable service. The R6000 comes with the standard Cushcraft warranty of one year from purchase - plus the industry's leading technical support team stands behind each Cushcraft antenna.

The R6000 makes an excellent diversity antenna to complement even the most complete stations, or pack up the R6000 for a trip to the DX location of your dreams.



CUSHCRAFT CORPORATION

# R8 MULTIBAND VERTICAL

## HF Multiband Vertical Antenna

### 6, 10, 12, 15, 17, 20, 30, 40 Meter

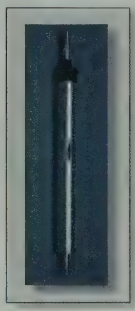
Here is Cushcraft's newest multiband HF vertical antenna. This multiband vertical design provides 8 band coverage encompassing the 6, 10, 12, 15, 17, 20, 30 and 40 meter bands.

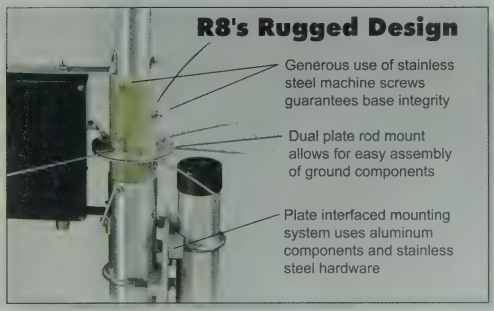
Cushcraft has achieved a major breakthrough in the development of an HF multiband vertical antenna that has been specifically designed for use with a tuner and amplifier. As a result, the antenna more accurately addresses the needs of the contemporary ham shack.

Multiband vertical antennas have always been complicated designs with components as likely to be damaged by high levels of mismatched transmit power as the rigs they are attached to. Before the use of tuners became widespread, the antenna was protected by the same safety mechanisms that protected the rig. Now, the automatic power reduction circuits of of the past have actually become a second layer of protective circuitry. Although the auto-tuner provides the ham with a more versatile device as well as protecting the rig's components, the antenna is more vulnerable than ever. With the press of a button, very high loads can be imposed on the antenna. The result to the antenna can be catastrophic failure in some instances.

The R8 is the first multiband vertical designed for the rigors of contemporary operating conditions. Although the antenna is best operated within it's 2.0:1 VSWR bandwidth, it can sustain a 3.0:1 VSWR mismatch at full power for typical operating intervals. Now radio amateurs can take full advantage of the versatility that a tuner used in conjunction with a multiband HF vertical antenna can give them. *For high wind environments, add the R8GK Guy kit–three point non-conductive guy system.*

- **RUGGED CONSTRUCTION**
- **INSTANT BAND CHANGING**
- **SLIM, LOW PROFILE SILHOUETTE**

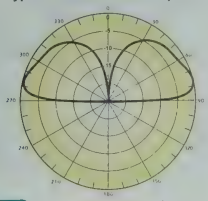


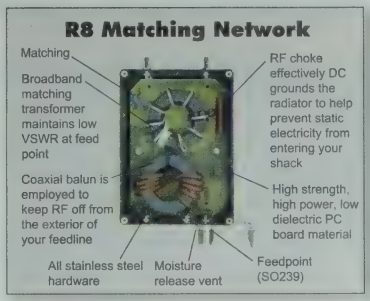



| SPECIFICATIONS | R8 |
|---|---|
| Frequency, meters: | 6,10,12,15,17,20,30,40 |
| Gain, dBi: | 3 |
| VSWR 2:1 bandwidth, KHz: | 40m (150) |
| | 30m (>50) |
| | 20m (>350) |
| | 17m (>100) |
| | 15m (>450) |
| | 12m (>100) |
| | 10m (>1500) |
| | 6m (>1500) |
| VSWR at resonance (typical): | 1.3:1 |
| Power Rating, Watts PEP: | 1500 |
| Vertical Radiation angle, deg.: | 16 |
| Horizontal rad, deg.: | 360 |
| Height, ft(m): | 28.5 max. (8.7) |
| Wind survival: | 80 mph |
| Weight, lb. (kg): | 23 (10.5) |
| Shipping Dimensions: | 3-3/4" x 5-1/4" x 84-1/2" |

Even if you aren't using a tuner and amplifier, you will appreciate this antenna's rugged, heavy duty components. The R8 is easy to assemble and is built to provide years of trouble free service and satisfaction.

**Typical elevation radiation pattern**





# INTRODUCING, MA5V/MA6V VERTICALS

6 - 20 Meters

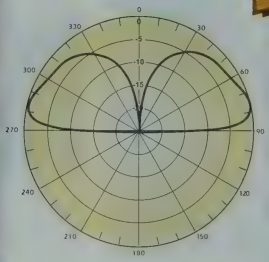
## MA5V Five-Band Restricted-Space Vertical Antenna

- Light-weight rugged construction
- Rapid breakdown for storage or transport
- No exotic matching networks or tuners
- Advanced "no radial" OCFD design

Cushcraft's new MA5V delivers superb HF multi-band performance while maintaining a neighbor-friendly low profile. Perfect for roof-mounts, patios, small backyards, condos, and motor homes, this 6.5-pound bantam-weight installs quickly without the "heavy lifting" required of larger antennas. Whether you install it permanently or take it down between operating sessions, you'll appreciate special features like the MA5V's gust-absorbing fiberglass base, resin-sealed resonator coils, aluminum mast blocks, and all-stainless hardware. Best of all, the MA5V is solidly engineered—its "no-radial" OCFD design delivers low SWR and high performance without using exotic matching networks or tuners. Simply connect a radio and you're ready to work the world! The MA5V is the perfect restricted-space DX solution for 20, 17, 15, 12, and 10 meters!

## MA6V Six-Band Restricted-Space Vertical Antenna

Made for today's expanded-coverage radios, Cushcraft's MA6V provides the same great versatility and performance of the MA5V—with the addition of 6 Meters. Enjoy congestion-free FM-repeater operation and explore the world of exotic seasonal band openings on 50 MHz CW and SSB. It's a great way to add amateur radio's "magic band" to your operating repertoire!




Typical elevation radiation pattern

| SPECIFICATIONS | MA5V | MA6V |
|---|---|---|
| Frequency, meters: | 20, 17, 15, 12, 10, | 20, 17, 15, 12, 10, 6 |
| Gain, dBi: | 1-2 | 1-2 |
| VSWR at resonance: | 1.2:1 All bands | 1.2:1 All bands |
| Maximum Wind Surface: | .82 $ft^2$ (.076 $m^2$) | .82 $ft^2$ (.076 $m^2$) |
| Wind Survival, mph: | >80 | >80 |
| Maximum Power PEP: | 250 W | 250 W |
| Height, ft (m): | 14.7 (4.48) | 14.7 (4.48) |
| Mast size, in (cm): | 1.25 -2.0" | (3.18-5.1) |
| Weight, lb (kg): | 6.5 (2.95) | 6.9 (3.13) |
| Shipping Dimensions: | 3" x 3" x 80-1/2" | 3" x 3" x 80-1/2" |

# HF MULTIBAND BEAM

10 - 20 Meters

High Front To Back Ratio
On 10/15/20m

## The Director, Small Footprint–Big Signal

**MA5B**. Cushcraft's newest multiband HF antenna provides 5 band directivity in a package small enough to mount to a tripod. The MA5B is a design that does not sacrifice ruggedness, performance and power handling for size and ease of installation.

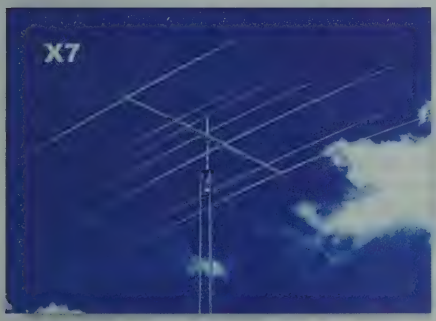
- *I am delighted with the performance compared with other HF antennas I have been using!*
  *Bob Swannell, MOBYA*

- *Thank you for making a fine quality, powerful mini beam that can fit anyones budget.*
  *Phil West, KF2WL*

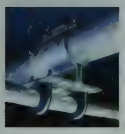
| SPECIFICATIONS | MA5B | | | | | |
|---|---|---|---|---|---|---|
| Frequency, MHz | 10 | 12 | 15 | 17 | 20 | Meters |
| Elements | 2 | 1 | 2 | 1 | 2 | per band |
| Gain | 5.3 | 1.0 | 4.8 | 1.0 | 3.6 | dBi |
| Front to Back Ratio | 10 | 0 | 12 | 0 | 22 | dB |
| Sidelobe Attenuation | 25 | 25 | 25 | 25 | 25 | dB |
| VSWR 2:1 Bandwidth | 665 | >110 | 255 | >100 | 90 | kHz |
| Longest Element | 17.1ft (5.2m) | | | | | |
| Turning Radius | 8.8ft (2.7m) | | | | | |
| Boom Length | 7.3ft (2.2m) | | | | | |
| Boom Diameter | 1.5in (3.8cm) | | | | | |
| Max. Wind Surface Area | 3.22 $ft^2$ (.3$m^2$) | | | | | |
| Max. Power Handling | 1.2 kw | | | | | |
| Weight | 26.5 lbs. (12kg) | | | | | |

- **Easy To Tune**
  No complicated gamma matches to adjust.
- **Low VSWR**
  Flat response across all 5 bands. VSWR minimum 1.2:1.
- **Single Feed Point**
  Only one coaxial feed line is necessary for all 5 bands.
- **Rugged Construction**
  Cushcraft's tried and true stainless steel mounting hardware and heavy wall aluminum tubing make for a rugged, long lasting antenna.
- **Easy To Turn**
  With a boom length of 7 feet and a longest element length of 17 feet, a lightweight TV rotor will do the trick.

# BIG THUNDER TRIBANDER




- New High Efficiency Computer Optimized Design for Maximum Gain and Ultra Clean Radiating Pattern
- 100+ MPH Construction for Best Reliability and Long Life
- NEW 4L Log Cell Driven Elements for better VSWR Bandwidth
- Trapless Driven Elements and Reflectors for Reliable Power Handling
- Interleaved Element Design for Mono-Band Performance
- Add-on kits available for 40 Meters



Element Hardware

Boom-to-Mast

### 40 Meter Add On Kits

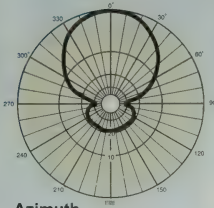
| MODEL | X740 |
|---|---|
| Band | 7 MHz |
| Element Length ft. (m) | 41 (12.5) |
| Power (W) | 2KW |
| Weight | 20lbs. (9.1 kg) |

## X7

The X7 Triband Yagi is geared to set new standards in both radiating performance and mechanical reliability. Cushcraft's product development team has employed the latest computer modeling technology to achieve a superior electrical design as well as elegant new mechanical hardware and assembly techniques.

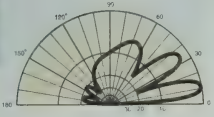
Each mechanical component was designed to $100^+$ MPH wind survival with a 1.25 safety factor. Traps were eliminated from the high current driven elements and reflectors using the new 4L Log Cell design, which yields virtual monoband performance and maximum power handling capability. Traps are employed only in the lower current directors for increased gain and sharper pattern. The result is a truly high performance antenna which will easily handle the legal limit.

**X7**



Azimuth

Typical radiation patterns.
Height: One wavelength.
Frequency: 20 M



Elevation

| SPECIFICATIONS | | X7 |
|---|---|---|
| Frequency Coverage (Meters) | | 10, 15, 20 |
| Total number of Elements | | 7 |
| Maximum Gain (dBi) | 20M | 12.5 @ 14 deg |
| @ One Wavelength | 15M | 13.0 @ 12 deg |
| | 10M | 12.9 @ 14 deg |
| Maximum Front to Back Ratio (dB) | | 30 |
| Number of Elements per Band | | 3 |
| VSWR Minimum | | 1.1:1 |
| VSWR 1.5:1 Bandwidth (KHz) | 20M | 600 |
| | 15M | 750 |
| | 10M | 1700 |
| Longest Element, ft (m) | | 37.2 (11.33) |
| Turning Radius, ft (m) | | 20.0 (6.09) |
| Boom Length, ft (m) | | 18 (5.49) |
| Boom Diameter, in (cm) | | 2-1/2 (6.35) |
| Maximum Mast Diameter OD, in (cm) | | 2-1/2 (6.35) |
| Maximum Wind Survival, mph (kph) | | >100 (>161) |
| Maximum Wind Surface Area, $ft^2$ ($m^2$) | | 7.9 (.73) |
| Windload @ 80 mph, lb (kg) | | 202 (92) |
| Maximum Power Handling (KW) | | 2 |
| Weight, lb. (kg) | | 60 (27.2) |

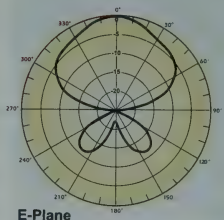
CUSHCRAFT CORPORATION

# ASL670 LOG PERIODIC ANTENNA

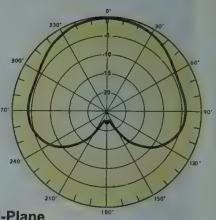
6 Meter - 70 CM

The antenna exhibits excellent gain and f/b with good VSWR bandwidth to boot. Get one today and enjoy the fun of high performance operation and multi-frequency listening all in one compact antenna.

- Rugged construction
- Wide band Log Periodic
- Easy to install
- Easy to turn



E-Plane



H-Plane

| MODEL | ASL670 |
|---|---|
| Frequency, MHz: | 50 - 450, Continuous |
| No. Elements: | 14 |
| Forward Gain, dBi, dBd: | 6.5, 4.5 |
| Front to Back Ratio, dB: | 20 |
| SWR: | 1.5:1 Average |
| Power Rating, Watts PEP: | 300 |
| 3dB Beamwidth, Degrees, H-Plane: | 110 |
| E Plane: | 80 |
| Boom Length, ft (m): | 6'-8" (1.9) |
| Boom Size, in (cm): | 1.0 x 2.75 (2.54 x7) |
| Longest Element, ft (m): | 126.6" (3.22) |
| Turning Radius, Horizontal Mtg. ft (m): | 6'-3" (1.9) |
| Turning Radius, Vertical Mtg. ft (m): | 3'-9" (1.15) |
| Mast Size Range, in (cm): | 1.5"-2.5" (3.8-6.4) |
| Wind Load, $ft^2$ ($m^2$): | 3.0 (.28) |
| Weight, lb (kg): | 11-1/4 (5.15) |

## ASL670 Log Periodic

Cushcraft's new ASL670 is the ultimate multi-use antenna. Since the antenna is a log periodic, it offers continuous coverage through the 2 and 6 meter bands as well as 220 and 440 MHz. So, while being a terrific antenna for operating on those bands, it is also a great aviation and public safety band monitoring antenna. Use the antenna for contesting and mountain topping if you like. The antenna is compact and easy to assemble and disassemble with no tuning required. Yet it is rugged enough for permanent installation. The ASL670 really shines in its performance specs.

- Continuous five band coverage from 13.5 to 32 MHz
- Constant over entire frequency range
- 6.4 dBi gain, 65 degree beamwidth
- High efficiency design, antenna stays cool and VSWR steady
- 18 foot boom and 19.5 foot turning radius

| MODEL | ASL2010 |
|---|---|
| Frequency, MHz | 13.5-32 |
| No. Elements | 8 |
| Forward Gain, dBi | 6.4 |
| Front to Back Ratio, dB | 15-20 |
| SWR 1.2:1 Typical | |
| 2:1 Bandwidth | 18.5 MHz |
| Power Rating, Watts PEP | 2000 |
| 3dB Beamwidth, Degrees | |
| E Plane | 65 |
| Boom Length, ft (m) | 18 (5.48) |
| Boom Diameter, in (cm) | 2.0 (5.08) |
| Longest Element, ft (m) | 38 (11.58) |
| Element Ctr Dia., in (cm) | 1.25 (3.18) |
| Turning Radius, ft (m) | 19.25 (5.86) |
| Mast Size Range, in (cm) | 1.5-2 (3.8-5.1) |
| Wind Load, $ft^2$ ($m^2$) | 10.1 (.93) |
| Weight, lb (kg) | 55 (25.5) |

## Skylog

The ASL2010 log periodic antenna is the most cost effective, high gain, five band antenna solution on the market today. Skylog offers continuous operation from 13.5 to 32 MHz. Antenna gain and beamwidth are constant for uniform coverage from 10 through 20 meters. The ASL2010 is rated for continuous duty at full legal power. Skylog is designed for maximum gain on a manageable 18 foot boom with only 10.1 square feet of wind surface area. All stainless steel hardware and rugged element design are only some of the many features that provide years of superior antenna performance. Skylog ASL2010 is the smart choice for multiband HF operation.

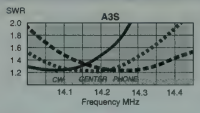
# 10 - 40 M WORLD RANGER MULTIBAND HF YAGIS

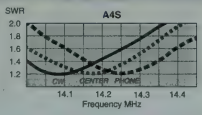
## A4S Four Element Beam - 10, 15 & 20 Meters

***With stainless steel hardware.***
The A4S is the true, high performance tribander. Precisely tuned high-power traps, carefully selected element lengths, and proper spacing combine to make the A4S the preferred antenna for your HF work! This is the premium antenna with all the features that you want. High gain, low SWR, and wide bandwidth keep the contacts coming in. All U-bolts, clamps and hardware are stainless steel. The A4S has pinned boom sections and formed aluminum brackets to keep elements straight under all conditions. Our solid construction keeps the A4S on the tower! Add 40 meters with A744 kit.

## A3S Three Element Beam - 10, 15 & 20 Meters

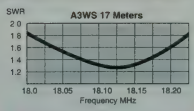
***With stainless steel hardware.***
The A3 World Ranger, our top selling tribander, has become the A3S with all stainless steel hardware. It's a real power-house in a small space and lets you work the pile-ups with confidence. All you need is a lightweight tower and rotator to enjoy the benefits of the A3S. It's a proven performer in DX-peditions and contests and handles full power from your linear. Construction features include pinned boom sections, heavy duty element clamps with backing plates plus all stainless steel hardware. When space is at a premium, but you want the benefits of a full-size tribander, the A3S is right for you! Add 40 meters with A743 kit.

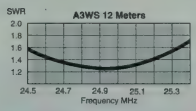


## A3WS WARC Bands 3 Element - 12 & 17 Meters

Enjoy the excitement of the WARC bands with this popular beam. The A3WS gives full performance on 12 and 17 meters. With the addition of our easy-to-use A103 add on kit, it will also cover 30 meters. A3WS needs only a lightweight tower and rotator or you can mount it above an existing tribander. Construction features include pinned boom sections, heavy duty element clamps with backing plates plus all stainless steel hardware.




| MODEL | A4S | A3S | A3WS |
|---|---|---|---|
| Frequency, MHz | 28, 21, 14 | 28, 21, 14 | 24, 18 |
| No. Elements | 4 | 3 | 3 |
| Forward Gain, dBi | 8.9 | 8.0 | 8.0 |
| Front to Back Ratio, dB | 25 | 25 | 25 |
| SWR 1.2:1 Typical | | | |
| 2:1 Bandwidth KHz | >500 | >500 | 300 |
| Power Rating, Watts PEP | 2000 | 2000 | 2000 |
| 3 dB Beam Width, Deg. E Plane | 58 | 60 | 60 |
| Boom Length, ft (m) | 18 (5.48) | 14 (4.27) | 14 (4.27) |
| Boom Diameter, in (cm) | 2 (5.10) | 1.5 (3.81) | 1.5 (3.81) |
| Longest Element, ft (m) | 32 (9.75) | 27.75 (8.45) | 25.1 (7.66) |
| Element Center Dia, in (cm) | 1.25 (3.18) | 1.25 (3.18) | 1.25 (3.18) |
| Turning Radius, ft (m) | 18.4 (5.49) | 15.5 (4.72) | 14.4 (4.4) |
| Mast Size Range, in (cm) | 1.25-2.00 (3.18-5.08) | 1.25-2 (3.18-5.08) | 1.25-2 (3.18-5.08) |
| Wind Load, $ft^2$ ($m^2$) | 5.50 (0.51) | 4.36 (0.47) | 4.1 (0.38) |
| Weight, lb (kg) | 37 (16.8) | 27 (12.9) | 22.5 (10.2) |

## 30 & 40 Meter Add-On Kits - For A3S, A4S & A3WS

40 meters will come alive by adding one of these kits to the dipole of your A3S or A4S. The kits include high power traps with heavy wall fiberglass insulator and all hardware. A simple adjustment allows 30 meter operation. For our newest beam, the A3WS, we have a 30 meter add on kit the A103.

**A743** 7 MHz/10 MHz kit for A3S
**A744** 7 MHz/10 MHz kit for A4S
**A103** 10 MHz kit for A3WS

| MODEL | A743/A744 | | A103 |
|---|---|---|---|
| BAND | 7 MHz (40 m) | 10 MHz (30m) | 10 MHz (30m) |
| Driven Element with Adapter kit, ft (m) | 33.19 min. 35.33 max. (10.12-10.77) | 27.12 min. 28.4 max. (8.27-8.66) | 32.1 (9.8) |
| Windloading ft2 (m2) | .58 (.05) | .27 (.03) | .45 (.04) |
| Bandwidth, KHz | 125 | 150 | 250 |
| Power Rating, Watts | 2000 PEP | 2000 PEP | 2000 PEP |
| Side Rejection, dB | 20 | 20 | 20 |
| Weight, lb (kg) | 3.44 (1.56) | 2.29 (1.04) | 3.25 (1.47) |

## Rotatable Dipoles

Our World Ranger Dipoles give bi-directional patterns and rotatable convenience. You can mount them high and away from the trees for better performance than a wire dipole. These single and multi-band dipoles feature high-performance traps, heavy wall tubing, and rugged hardware for years of enjoyment.

| MODEL | D40 | D4 | D3 | D3W |
|---|---|---|---|---|
| Frequency, MHz | 7 | 28,21,14,7 | 28,21,14 | 24.18,10 |
| SWR 1.2:1 Typical | | | | |
| 2:1 Bandwidth, KHz | 200 | >350 40>125 | >500 | >200 |
| Power Rating Watts PEP | 2000 | 2000 | 2000 | 2000 |
| Length ft (m) | 42.25 (12.88) | 35.8 (10.92) | 25.8 (7.86) | 34.0 (10.37) |
| Mast Size, in(cm) | 1.5-2 (3.8-5) | 1.5-2 (3.8-5) | 1.5-2 (3.8-5) | 1.5-2 (3.8-5) |
| Wind Load, ft2 (m2) | 1.3 (.12) | 1.3 (.12) | .9 (.08) | .9 (.08) |
| Weight, lb (kg) | 12 (5) | 13 (6) | 9 (4) | 11 (5) |

CUSHCRAFT CORPORATION

# MULTIBAND DIRECTIONAL YAGI

6/2 Meter,70 CM,

- **Outstanding performance thanks to Cushcraft's unmatched multiband design technology and experience.**
- **Rugged stainless steel mounting hardware is easy to install and maintain.**

## A627013S 6 Meter/2Meter/70 CM

Cushcraft's newest multiband directional yagi is designed to provide hobbyists who have limited tower or mast space with directional antenna performance on three of the most popular bands. The A627013S combines 6 meters, 2 meters and 70 centimeters on one boom. Since the three antennas were designed to share a common boom, the A627013S solves the often encountered problem of degraded antenna performance due to inadequate spacing when using separates.

| MODEL | A627013S | | |
|---|---|---|---|
| Frequency, MHz | 50-54 | 144-148 | 430-450 |
| No. Elements | 3 | 5 | 5 |
| Forward Gain, dBi | 8 | 10 | 10 |
| Front to Back Ratio, dB | 20 | 20 | 18 |
| SWR 1.2:1 Typical | | | |
| 2:1 Bandwidth, MHz | >1 | >4 | >10 |
| Power Rating, Watts PEP | 1000 | 350 | 350 |
| 3dB Beamwidth, Degrees | | | |
| E Plane | | 48.5 | 48.5 |
| H Plane | | 60 | 60 |
| Boom Length, ft (m) | | 8.66 (2.66) | |
| Longest Element, in (cm) | | 117 (300) | |
| Turning Radius, ft (m) | | 6.16 (1.87) | |
| Mast Size Range, in (cm) | | 1.25-2 (3.2-5.1) | |
| Wind Load, $ft^2$ ($m^2$) | | 2.52 (0.23) | |
| Weight, lb (kg) | | 9.5 (4.3) | |

Boom-to-Mast

Element Hardware

## Big Thunder Monobander

Cushcraft's XM240 monobander utilizes rugged Big Thunder hardware that combined with high strength aluminum tubing affords the antenna outstanding wind survivability. Phillystran boom trusses are used in the XM240 design for extra boom stability. The feed system is a 50 ohm direct feed with dual driven elements. VSWR is flat across the band. A high power 1:1 balun is included. The XM240 is field-proven for reliability and performance. Excellent front to back ratio and gain makes the XM240 the right choice for DX and for stacking as well.

| MODEL | XM240 |
|---|---|
| Frequency, MHz | 7.0 - 7.3 |
| Number Elements | 2 |
| Forward Gain Free Space, dBi | 6.0 |
| Fwd Gain @ 1 Wavelength Ht, dBi @ 14 deg | 12.5 |
| Front to Back Ratio, dB | 20-25 |
| VSWR Typical Minimum | 1.1:1 |
| VSWR 1.5:1 Bandwidth, KHz | 150 |
| Power Rating, Watts Output | 1500 |
| 3dB Beamwidth, Degrees | 70 |
| Side Lobe Attenuation, dB | >35 |
| Boom Length, feet (m) | 22 (6.7) |
| Boom Diameter, inches (cm) | 2.5 (6.3) |
| Longest Element, feet (m) | 43 (13.1) |
| Turning Radius, feet (m) | 24.3 (7.4) |
| Max Mast Size, inches (cm) | 2.5 (6.35) |
| Wind Surface Area, sq ft (sq m) | 5.5 (.51) |
| Wind Load @ 80 mph, lbs (kg) | 142 (64.4) |
| Weight, lbs (kg) | 55 (25) |

# RINGO RANGER II, RINGO RANGER, RINGO

70 CM, 1¼M, 2 M

**Some hams comment on the ARX2B:**
*"Since I put this antenna up I have received many compliments on the improvement of my signal." (N3LHP)*

*"The only antenna I ever installed that worked like it should the first time." (N7PGH)*

*"ARX2B is a good antenna for my use on 2 meters FM...Several on the air in my area." (N9OPL)*

*"ARX2B...the best antenna." (XE2CLB)*

## Our Ringos are Number One

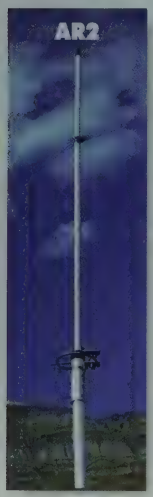
*Tough performers at a good price! The Ringo family of dependable, cost-effective antennas has served more hams - from novice to veteran extra - than any other amateur antenna made. Simple, straightforward design, light weight and quick, easy installation make the durable Ringo family right for you. Ringo's top performance and low cost mean more dB per dollar - an equation anyone can appreciate.*

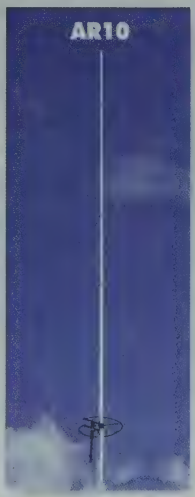
## Ringo Ranger II

Our Ringo Ranger II has more gain, less windload, and more mechanical integrity than other two meter antennas. You'll quickly appreciate the benefits of this amazing antenna! Based on the original W1BX Ringo, the Ringo Ranger II is the latest design featuring three 5/8 wave radiating elements and an adjustable 1/8 wave phasing stub. The result is a very low angle of radiation over your coverage area.

The Ringo Ranger II has built-in lightning protection, UV-stabilized insulators, heavy wall tubing, improved decoupling radials to eliminate feedline radiation, and all-weather performance.

| MODEL | ARX2B | ARX220B | ARX450B |
|---|---|---|---|
| Frequency, MHz | 135-160 | 222-225 | 435-450 |
| SWR 1.2:1 Typical 2:1 Bandwidth, MHz | >3 | >5 | >10 |
| Gain, dBi | 7.0 | 7.0 | 7.0 |
| Power Rating, Watts FM | 1000 | 500 | 500 |
| Radiation Angle, Deg. | 7 | 7 | 7 |
| Horizontal Radiation Pattern, Degrees | 360 | 360 | 360 |
| Ring Diameter, in (cm) | 5 (12.7) | 5 (12.7) | 3.5 (8.9) |
| Radiator Base Dia, in (cm) | .75 (1.9) | .75 (1.9) | .50 (1.2) |
| Height, ft, (m) | 14 (4.3) | 9.3 (2.8) | 4.9 (1.5) |
| Mast Size Range, in (cm) | 1.0-1.25 (2.54-3.1) | 1.0-1.25 (2.54-3.1) | .75-.88 (1.9-2.22) |
| Radial Length, in (cm) | 20.5 (52.1) | 13.75 (33.7) | 6.75 (17.1) |
| Wind Load, $ft^2$ ($m^2$) | 0.5 (0.05) | 0.3 (0.03) | 0.2 (0.02) |
| Weight, lb (kg) | 6 (2.7) | 5 (2.3) | 1 (.45) |





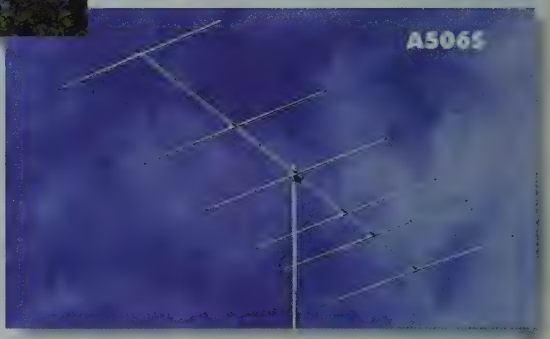

## Ringo

These are the original W1BX FM Ringos. If you want a combination of compact size, wide bandwidth, a low radiation angle, these economical antennas are just for you. Since radials are not needed, you can even use our Ringos indoors. Our Ringos are 1/2 wave and include built-in lightning protection. Put up one of these easily installed antennas and start enjoying FM!

| MODEL | AR2 | AR6 | AR10 | AR450 |
|---|---|---|---|---|
| Frequency, MHz | 135-160 | 50-54 | 28-29.7 | 440-460 |
| SWR 1.2:1 Typical 2:1 Bandwidth, MHz | 10 | 2 | >1.5 | 20 |
| Gain, dBi | 3 | 3 | 3 | 3 |
| Power Rating, Watts FM | 1000 | 1000 | 1000 | 500 |
| Radiation Angle, Deg. | 16 | 16 | 16 | 16 |
| Horizontal Radiation Pattern, Degrees | 360 | 360 | 360 | 360 |
| Ring Diameter, in (cm) | 5 (12.7) | 13 (33) | 13 (33) | 3.5 (8.9) |
| Radiator Base Dia, in(cm) | .75 (1.9) | 1 (2.5) | 1 (2.5) | .5 (1.3) |
| Height, ft, (m) | 3.9 (1.2) | 10.1 (3.1) | 17.6 (5.36) | 1.4 (.43 |
| Mast Size Range, in (cm) | 1-1.25 (2.54-3.1) | 1-1.25 (2.54-3.1) | 1-1.25 (2.54-3.1) | .75-.88 (1.9-2.22) |
| Wind Load, $ft^2$ ($m^2$) | .21 (.02) | .37 (.03) | 1.68 (.16) | .1 (.01) |
| Weight, lb (kg) | 1.5 (.68) | 2.5 (1.1) | 4 (1.8) | 1 (.45) |

## 6 Meter Yagis - SSB/CW/FM

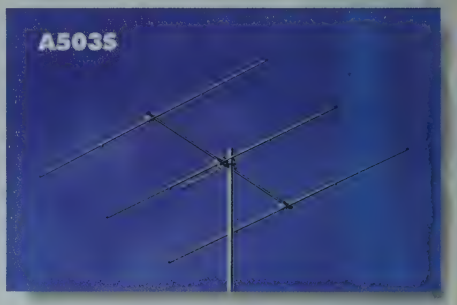
Computer-aided modeling and test range techniques were used by Cushcraft engineers to further optimize the performance of our popular 6 meter Yagis. This process means more gain and cleaner patterns with excellent front-to-back ratios. S-models have very broad bandwidth so they will not detune in bad weather. They feature stainless steel hardware for long trouble-free life. Enjoy the new popularity and exciting contacts on the 6 meter band with one of the S-series Cushcraft Yagis. The A503S, A505S and A506S may be mounted vertically for FM use.




## 10 Meters

Looking for a lightweight, economical alternative to the 10 meter big boys? Choose the TEN3. Although it's popular with novices and technicians, this antenna is for any ham who wants more gain with a good front to back ratio on 10 meters. This antenna has an 8 foot boom (2.4m) making it easy to install on a very simple mount with only a light rotator. The matching system is our proven Reddi-Match for 50 Ohm no balun feed and SO-238 connector. Make more positive contacts with the TEN3.

| MODEL | A503S | A505S | A506S | TEN3 |
|---|---|---|---|---|
| Frequency, MHZ: | 50-54 | 50-54 | 50-54 | 28-29.7 |
| No. Elements: | 3 | 5 | 6 | 3 |
| Forward Gain, dBi: | 8 | 10.5 | 11.6 | 8 |
| Front to Back Ratio, dB: | 20 | 24 | 26 | 25 |
| SWR 1.2:1 Typical: | | | | |
| 2:1 Bandwidth, MHz: | >1 | >1 | >1 | >1.5 |
| Power Rating, Watts PEP: | 1000 | 1000 | 1000 | 1500 |
| 3dB Beamwidth, Degrees | | | | |
| E Plane: | 76 | 56 | 48 | 64 |
| Boom Length, ft (m): | 6 (1.8) | 12 (3.7) | 20 (6.1) | 8 (2.44) |
| Longest Element, in (cm): | 117 (300) | 123 (312) | 119 (302) | 18 (5.49) |
| Turning Radius, ft (m): | 6 (1.8) | 7.8 (2.37) | 11.5 (3.5) | 9.8 (3.0) |
| Mast Size Range, in (cm): | 1.5-2 (3.8-5.1) | 1.5-2 (3.8-5.1) | 1.5-2 (3.8-5.1) | 1.5-2 (3.8-5.1) |
| Wind Load, ft2 (m2): | 1.80 (0.17) | 2.9 (0.273) | 4.46 (.41) | 2.0 (.20) |
| Weight, lb (kg): | 7 (3.2) | 11 (5.0) | 18 (8.2) | 9.9 (4.45) |



## A14820T 2 Meter Hi-Lo Cross Yagi

Here's the antenna that solves multi-mode problems! Ten vertically polarized and ten horizontally polarized elements provide 11.1 dBi gain covering 144-148 MHz. The horizontal elements handle your CW and SSB needs, while the vertical elements cover FM. Hardware is stainless steel. Separate coax feeds allow polarization changes.

## 224WB

### 220 MHz Widebands

This 222 MHz 4 element beam is perfect for Packet, FM repeaters, or sideband/CW. It can be mounted for vertical or horizontal polarization.

| MODEL | 224WB | A14820T |
|---|---|---|
| Frequency, MHZ | 222-225 | 144-148 |
| No. Elements | 4 | 10/10 |
| Forward Gain, dBi | 10.2 | 13 |
| Front to Back Ratio, dB | 24 | 24 |
| SWR 1.2:1 Typical | | |
| 2:1 Bandwidth, MHz | >5 | >4 |
| Power Rating, Watts PEP | 1500 | 1000 |
| 3dB Beamwidth, Degrees | | |
| E Plane | 60 | 45 |
| H Plane | 88 | 50 |
| Side Lobe Attenuation, dB E Plane | 40 | 40 |
| Boom Length, ft (m) | 3 (.91) | 11(3.4) |
| Electrical Wavelength | 0.5 | 1.6 |
| Longest Element, in (cm) | 26.7 (68) | 40.6 (103) |
| Turning Radius, ft (m) | 3 (.91) | 7.5 (2.3) |
| Mast Size Range, in (cm) | 1.25-2 (3.2-5.1) | 1.25-2 (3.2-5.1) |
| Wind Load, $ft^2$ ($m^2$) | .23 (.021) | 0.39(0.11) |
| Weight, lb (kg) | 1.7 (.77) | 7 (3.15) |

## A4496S/A44911S

Use one of these 440 MHz beams for your FM/Packet needs. Both work great for vertical or horizontal polarization.

| MODEL | 719B | A43011S | A4496S | A44911S |
|---|---|---|---|---|
| Frequency, MHz | 430-450 | 430-440 | 440-450 | 440-450 |
| No. Elements | 19 | 11 | 6 | 11 |
| Forward Gain, dBi | 15.5 | 13.2 | 10.5 | 13.2 |
| Front to Back Ratio, dB | 25 | 20 | 18 | 20 |
| SWR 1.2:1 Typical | | | | |
| 2:1 Bandwidth MHz | 20 | >10 | >10 | >10 |
| Power Rating, Watts PEP | 2000 | 350 | 350 | 350 |
| 3 dB Beamwidth, Degrees | | | | |
| E Plane | 24 | 48 | 60 | 48 |
| H Plane | 19 | | | |
| Side Lobe Atten., dB, E Plane | 60 | 40 | 30 | 40 |
| Boom Length, ft (m) | 13.5 (4.1) | 4.6 (1.39) | 2.9 (0.89) | 4.4 (1.35) |
| Electrical Wavelength | 6 | | | |
| Longest Element, in (cm) | 13.75 (34.9) | 14 (35) | 13 (33) | 13 (33) |
| Turning Radius, ft (m) | 7.25 (2.2) | 2.8 (.85) | 2.9 (.89) | 2.8 (.85) |
| Mast Size Range, in (cm) | 1.25-2 (3.2-5.1) | 1.25-1.5 1.25-1.5 | 1.25-2.0 (3.2-5.1) | 1.25-1.5 1.25-1.5 |
| Wind Load, $ft^2$($m^2$) | 1.2 (.11) | 0.42 (0.04) | 0.30 (0.03) | 0.39 (0.04) |
| Weight, lb (kg) | 5.6 (2.55) | 4 (1.8) | 3 (1.4) | 4 (1.8) |

## 719B FM, CW and SSB 15.5 dBi

Looking for an antenna to enhance performance on all modes of the 70 CM band? The 13.5 foot long 719B is the right choice. Mount it vertical for FM or horizontal for CW and Sideband. The 719B joins the 2 meter 13B2 as a classic for improved performance.

# DIAMOND ANTENNAS

## The Standard By Which All Others Are Judged.

**Acclaimed as the technological leader in single & multiband antennas**

**• Wide-band Performance • Factory Adjusted–No Tuning Required • Highest Gain**
**• UPS Shippable • High Wind Rating • Fiberglass Radome • DC Grounded • Stainless Hardware**

X50NA

X500HNA

## X500HA (UHF-Conn.)
## X500HNA (Type-N Conn.)
## Ruggedized Base/Repeater Antenna

### X50NA

The X50NA is an excellent choice where ruggedness is required in a medium–gain, dual-band, base/repeater application.

***Features***

- Wide frequency bandwidth
- Heavy duty fiberglass radome
- Stainless steel mounting hardware and radials
- Type–N Cable connection
- Compact size for easy mounting/installation

***Specifications:***

Freq.: 2m: 144–148MHz
70cm: 440-450MHz
Gain: 2m: 4.5dB; 70cm: 7.2 dB
Power: 200 watts
Wind Rating: 135 MPH (no ice)
Height: 5.6 feet

### X500HNA

Diamond Antenna's best base station repeater antenna. Designed for strength and performance, the X500HNA is pretuned to achieve maximum gain in both the 2m and 70cm amateur bands.

***Features***

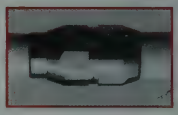
- Heavy duty fiberglass radome
- Overlapping outer shells for added strength
- Stainless steel mounting hardware and radials
- Strong, waterproof joint couplings
- Type–N Cable connection
- Wide band performance

***Specifications:***

Freq.: 2m: 144–148MHz 70cm: 440-450MHz
Gain: 2m: 8.3dB; 70cm: 11.7 dB
Power: 200 watts
Wind Rating: 90 MPH (no ice)
Height: 17.8 feet

COAX CONNECTION AT BASE END

HEAVY DUTY BASE/ RADIAL ASSEMBLY



STRONG JOINT COUPLINGS

### DIAMOND Mono-Band Base/Repeater Antennas

| MODEL | BAND (MHz) | GAIN (dB) | WATTS | CONN. | HT. FT. | RATED WIND MPH (No. Ice) |
|---|---|---|---|---|---|---|
| CP22E [1] | 144 | 6.5 | 200 | UHF | 9.0 | 70 |
| DPGH62 [1] | 50 | 6.0 | 200 | UHF | 21.0 | 78 |
| F22A | 144 | 6.7 | 200 | UHF | 10.5 | 112 |
| F23A | 144 | 7.8 | 200 | UHF | 15.0 | 90 |
| F718A [2] | 440 | 11.5 | 250 | N | 15.0 | 90 |
| G200 | 2.4GHz | 11 dBi | – | N | 4.8 | 135 |

### DIAMOND Dual-Band Base/Repeater Antennas

| MODEL | BAND (MHz) | GAIN (dB) | WATTS | CONN. | HT. FT. | RATED WIND MPH (No. Ice) |
|---|---|---|---|---|---|---|
| X50A | 144/440 | 4.5/7.2 | 200 | UHF | 5.6 | 135 |
| X50NA | 144/440 | 4.5/7.2 | 200 | N | 5.6 | 135 |
| X200A | 144/440 | 6.0/8.0 | 200 | UHF | 8.3 | 112 |
| X510NA [3] | 144/440 | 8.3/11.7 | 200 | N | 17.2 | 90 |
| X510MA | 144/440 | 8.3/11.7 | 200 | UHF | 17.2 | 90 |
| X500HNA | 144/440 | 8.3/11.7 | 200 | N | 17.8 | 90+ |
| X700HNA | 144/440 | 9.3/13.0 | 200 | N | 24.0 | 90 |
| U200 | 440/1240 | 8.3/11.7 | 100 | N | 5.9 | 135 |

### DIAMOND Tri-Band Base/Repeater Antennas

| MODEL | BAND (MHz) | GAIN (dB) | WATTS | CONN. | HT. FT. | RATED WIND MPH (No. Ice) |
|---|---|---|---|---|---|---|
| V2000A [4,6] | 52/144/440 | 2.1/6.2/8.4 | 150 | UHF | 8.3 | 110 |
| X3200A [5] | 146/222/440 | 6.0/7.8/8.0 | 100/200 | UHF | 10.5 | 112 |
| X6000A | 144/440/1240 | 6.5/9.0/10.0 | 100/60 | N | 10.5 | 112 |

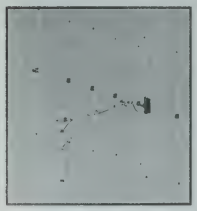
Most requirement: 1.4":2.4"

### DIAMOND Yagi Antennas

| MODEL | BAND (MHz) | GAIN (dBi) | WATTS (PEP) | CONN. | BOOM LNTH. | ELEMENT PHASING |
|---|---|---|---|---|---|---|
| A502HB | 50 | 6.3 | 400 | UHF | 2.6' | 2 element |
| A504HB | 50 | 10.8 | 400 | UHF | 10.7' | 4 element |
| A14455 | 144 | 9 | 100 | UHF | 37.5" | 5 element |
| A430510 | 432 | 13 | 100 | UHF | 43" | 10 element |
| A430515 | 432 | 14.8 | 100 | UHF | 89" | 15 element |

A502HB

A504HB



A14455

NOTES:

1 Heavy duty aluminum construction.
2 F-718A: 440-450MHz., F718L: 420-430MHz.
3 X510NJ: 144-147/430-440MHz.
4 1/4λ. rated in dBi.
5 2m: 146-148; 100 watts
6 52-54MHz. only

BAND: 144=144-148MHz., 222=222-225MHz., 420=420-430MHz.,430=430-440MHz., 440=440 450MHz., 1240=1240-1300MHz.



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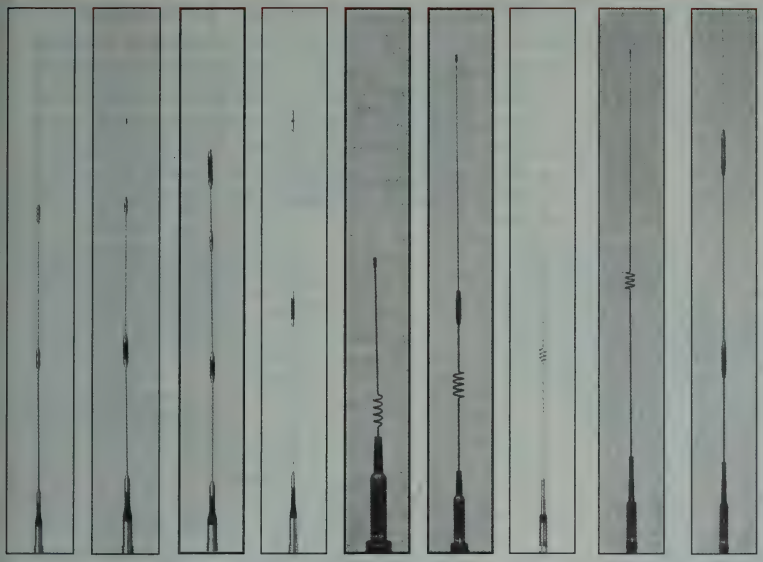
# DIAMOND'S STATE-OF-THE-ART

DIAMOND ANTENNA

## VHF/UHF And HF/VHF Mobile Antennas– Maximum Performance Without Compromise

**You've seen the rest...now own the BEST!**



SG2000HD | SG7500A SG7500NMO | SG7900A SG7900ANMO | SGM911 | NR72BNMO | NR73BNMO | NR770HA NR770HB | NR770HNMO NR770HBNMO | CR627B CR627BNMO

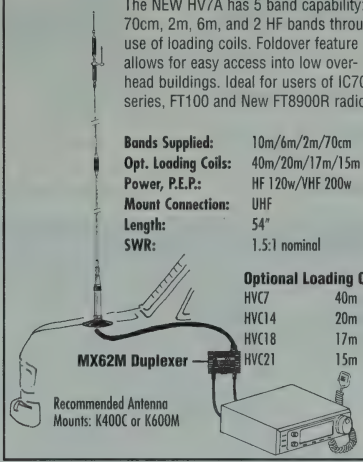
### HV7A Mobile Antenna System

**For New HF/VHF transceivers**

(Such as: IC706 series, FT100 & NEW FT8900R)

The NEW HV7A has 5 band capability: 70cm, 2m, 6m, and 2 HF bands through use of loading coils. Foldover feature allows for easy access into low overhead buildings. Ideal for users of IC706 series, FT100 and New FT8900R radios.

| | |
|---|---|
| **Bands Supplied:** | 10m/6m/2m/70cm |
| **Opt. Loading Coils:** | 40m/20m/17m/15m |
| **Power, P.E.P.:** | HF 120w/VHF 200w |
| **Mount Connection:** | UHF |
| **Length:** | 54" |
| **SWR:** | 1.5:1 nominal |




**Optional Loading Coils**

| | |
|---|---|
| HVC7 | 40m |
| HVC14 | 20m |
| HVC18 | 17m |
| HVC21 | 15m |

| MODEL | BAND (MHz) | GAIN (dB) | WATTS | CONN. | HT. IN. | ELEMENT PHASING |
|---|---|---|---|---|---|---|
| MR77 | 2m/70cm | 2.15/3.4 | 70 | MAG | 20 | 1/4λ, 1/2λ |
| MR77SMA | 2m/70cm | 2.15/3.4 | 70 | MAG | 20 | 1/4λ, 1/2λ |
| NR72BNMO*[6] | 2m/70cm | 2.15 | 100 | NMO | 13.8 | 1/4λ, 1/2λ |
| NR73BNMO | 2m/70cm | 2.15/5.3 | 100 | NMO | 33.5 | 1/2λ, 1-5/8λ |
| NR770HA[7] | 2m/70cm | 3.0/5.5 | 200 | UHF | 40.2 | 1/2λ, 2-5/8λ |
| NR770HNMO[8] | 2m/70cm | 3.0/5.5 | 200 | NMO | 38.2 | 1/2λ, 2-5/8λ |
| NR770RA | 2m/70cm | 3.0/5.5 | 200 | UHF | 38.6 | 1/2λ, 2-5/8λ |
| NR7900A* | 2m/70cm | 3.7/6.4 | 300/250 | UHF | 57 | 1/4+1/2λ, 3-5/8λ |
| SG7000A*[6] | 2m/70cm | 2.15/3.8 | 100 | UHF | 18.5 | 1/4λ, 6/8λ |
| SG7500A | 2m/70cm | 3.5/6.0 | 150 | UHF | 40.6 | 1/2λ, 2-5/8λ |
| SG7500NMO | 2m/70cm | 3.5/6.0 | 150 | NMO | 41.0 | 1/2λ, 2-5/8λ |
| SG7900A* | 2m/70cm | 5.0/7.6 | 150 | UHF | 62.2 | 7/8λ, 3-5/8λ |
| SG7900ANMO* | 2m/70cm | 5.0/7.6 | 150 | NMO | 62 | 7/8λ, 3-5/8λ |
| SGM510 | 2m/70cm | 2.15/5.5 | 100 | UHF | 37 | 1/2λ, 2-5/8λ |

| MODEL | BAND (MHz) | GAIN (dB) | WATTS | CONN. | HT. IN. | ELEMENT PHASING |
|---|---|---|---|---|---|---|
| CR8900A*[6, 11] | 10m/6m/2m 70cm | 2.1 (2m) 5.5 (70cm) | 60 | UHF | 50 | 1/4λ, 1/4λ 1/2λ, 2-5/8λ |
| SG2000HD* | 2m | 5.2 | 250 | UHF | 62.6 | 1/2λ+3/8λ |
| CR320A*[6] | 2m/1-1/4m 70cm | 2.15/3.8 5.5 | 200/100 200 | UHF | 37.4 | 1/4λ, 1/2λ 2-5/8λ |
| CR627B*[6,9] CR627BNMO*[6,9] | 6m/2m 70cm | 2.1/4.5 7.2 | 120 | UHF/NMO | 60 | 1/4λ, 1/2+1/4λ 2-5/8λ |
| HF6FX*[6] | 6m | 2 dBi | 250 | UHF | 40 | 1/4λ |
| HF50CX*[6] | 6m | 3.5 dBi | 200 | UHF | 75 | 3/8λ |
| NR22L* | 2m | 6.5 | 100 | UHF | 96.8 | 2-5/8λ |
| NR2000NA | 2m/70cm 23cm | 3.15/6.3/9.7 | 100 | N | 39 | 1/2λ, 2-5/8λ 5-5/8λ |
| M285*[10] | 2m | 3.4 | 200 | UHF | 52.4 | 5/8λ |
| M685*[6] | 6m | 2.15 dBi | 200 | UHF | 52.4 | 1/4λ |
| MG200 | 2.4GHz | 7 dBi | - | N | 23.6 | 3-1/2λ |
| SGM911*[6,9] | 6m/2m/70cm | 2.15/3/5.8 | 60 | UHF | 41 | 1/4λ, 1/2λ,2-5/8λ |
| NR124 | 23cm | 8.4 | 100 | N | 25 | 4-5/8λ |

### FOLD-OVER

Patented One-Touch Fold-Over Feature.
(Not available on M285, M685, MG200, MR77, MR77SMA, NR72BNMO & NR73BNMO)

* Not recommended for Magnet Mount
6 Grounding required
7 NR770HB same specs but in black finish.
8 NR770HBNMO same specs but in black finish.
9 52-54MHz only
10 Tunable from 140-174MHz
11 FM only
1/4λ rated in dBi.

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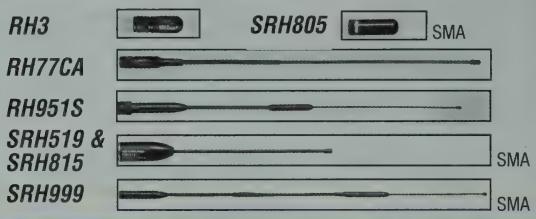
# DIAMOND Antenna Accessories

## High Efficiency HT & Scanner Antennas
## HF Multiband Vertical Antenna
## Duplexers & Triplexers
## Dummy Loads & Coaxial Switches

### RH and SRH Series

High quality, high gain HT antennas for mono, dual, and tri-band handheld radios. Available in both BNC and SMA connections. Increase the performance on your handheld or wideband scanner with a Diamond RH or SRH Series antenna.



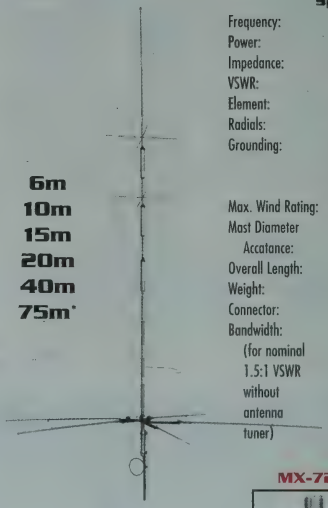

| MODEL | DESCRIPTION | RELATIVE GAIN* |
|---|---|---|
| RH3 | 2m/70m dual band "Black Bullet" HT antenna. 1.75" BNC. 120 to 900 receive | -2 dB |
| RH77CA | High gain 2m/70cm dual band HT antenna. Receive range to 900 MHz. BNC. | +6 dB |
| RH205 | 2m HT antenna, telescopic, 5/8λ fully extended, 47.5"; 1/4λ retracted, 9" | +9 dB |
| RH519 | 2m/70cm slim dual-band HT antenna. Flexible. 8" BNC, 10 watts. | +3 dB |
| RH707 | 2m/70cm dual-band -tiltable whip – HT antenna. 8 1/4" BNC. | +3 dB |
| RH951S | High gain 2m/70cm/23cm slim tri-band HT antenna. Flexible. BNC (Wide band receive) | +6 dB |
| SRH77CA | High gain 2m/70cm dual band flexible HT antenna. 15" SMA, 10 watts. | +6 dB |
| SRH320A | 2m/1-1/4m/70cm tri-band HT antenna. Flexible. SMA. 10 watts. | +3dB |
| SRH519 | 2m/70cm dual-band HT antenna. Flexible. 8" SMA, 10 watts. | +3 dB |
| SRH805 | 2m/70cm/23cm tri-band HT antenna. 1.75" SMA, 10 watts. | -2 dB |
| SRH815 | 2m/70cm/23cm tri-band HT antenna. Flexible. 6" SMA, 6 watts. | +3dB |
| SRH999 | 6m/2m/70cm/23cm quad-band HT antenna. Flexible. 19.5" SMA, 10 watts. | +3dB |

*Rated against typical stock HT antennas.

### CP6A HF MULTIBAND VERTICAL

The New CP6A multi-band trap-vertical antenna for HF bands, covering the 75*, 40, 20, 15, 10 and 6m amateur bands. Made from heavy-duty aluminum, the CP6A assembles easily, yields excellent performance and reliability from a compact base station antenna. Its compact size allows for many mounting options. Minimum 15 feet diameter required for mounting radials. No additional ground radials required. Mounting hardware included.

*75m requires a tuner.




**Specifications**

| | | |
|---|---|---|
| Frequency: | 75*/40/20/15/10/6m | |
| Power: | 200w PEP | |
| Impedance: | 50Ω | |
| VSWR: | 1.5:1 nominal | |
| Element: | 1/4 wave trap vertical | |
| Radials: | Trap design, six | |
| Grounding: | Direct grounding. Antenna element & radials connected to mounting pipe. | |
| Max. Wind Rating: | 80mph (no ice) | |
| Mast Diameter Accatance: | 1.2-2.4" | |
| Overall Length: | 15.10' (4.6m) | |
| Weight: | 9.9lbs. (4.9kg) | |
| Connector: | SO-239 female UHF | |
| Bandwidth: (for nominal 1.5:1 VSWR without antenna tuner) | 75m | 20kHz |
| | 40m | 40kHz |
| | 20m | 100kHz |
| | 15m | 200kHz |
| | 10m | 500kHz |
| | 6m | 3.5MHz |

MX-72D

MX-72H/N

DL30A/DL30N

CX210A/CX210N

CX310A

| MODEL | DESCRIPTION |
|---|---|
| CA23RS | Lightning surge protector, DC-2500 MHz, 200W Type-N (F) |
| CA23RW | Lightning surge protector, DC-2500 MHz, 200W Type-N (F) Waterproof. |
| CX210A | Heavy duty wideband coax switch, DC-1000 MHz. 1.5 kW, SO-239 |
| CX210N | Heavy duty wideband coax switch, DC-1500 MHz. 1.5 kW, Type N |
| CX310A | Heavy duty wideband coax switch, 3 position, DC–800MHz, SO–239 |
| DL30A | Dummy load, DC-500 MHz. 15w average/100w peak. PL-259 |
| DL30N | Dummy load, DC-500MHz. 15w average/100w peak. Type N |

### Duplexers/Triplexers

| MODEL | MX72D | MX72H | MX72N | MX2000 | | | MX62M | |
|---|---|---|---|---|---|---|---|---|
| FREQUENCY BAND (MHz) | LPF 1.6-30 | 140-150 | HPF 400-460 | LPF 1.6-60 | BPF 110-170 | HPF 300-950 | LPF 1.6-56 | HPF 76-470 |
| PWR CW (ICAS) WATTS P.E.P. | 400 1000 | 150 400 | 100 250 | 800 | 800 | 500 | 600 | |
| THRU LOSS/dB | 0.15 | 0.15 | 0.25 | 0.15 | 0.2 | 0.25 | 0.2 | 0.3 |
| ISOL | 60dB | | | 60dB | | | 50dB | |
| VSWR | 1.2:1 | | | 1.2:1 | | | 1.2:1 | |
| CONNECTOR COMPLEMENT | M MIX 144 430 M M | M MIX 144 430 M M | M MIX 144 430 M N | M MIX 50 144 430 M M M | | | M MIX HF VHF M M | |
| CONNECTOR | Direct | 12" Cable w/Connectors | | 12" Cable w/Connectors | | | 12" Cable w/Connectors | |



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DIAMOND ANTENNA

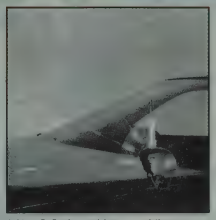
# DIAMOND'S Premium Antenna Mounts & Cable Assemblies

## Designed for today's high performance antennas

### K9000
**Motorized Mount**

Raise and lower your antenna with a touch of a button. Vertical adjustment 0-9º. Accepts "ground independent" antennas up to 45". Recommended antennas: SG7500NMO, NR73BNMO, SG7500A, NR2C and NR770 series.

**K9000TM** Trunk/Hatchback Mount
**K9000LRM** Luggage Rack Mount



* Use C-Series cable assemblies.

[1] Includes SMA to UHF adapter.

### K400
**Heavy Duty Hatchback/ Door/Truck Lid Mount**

Diamond's deluxe heavy duty mount. Two-axis adjustable. 4" wide mounting base with 4 set screws for maximum strength. Recommended for high gain VHF/UHF antennas.

**K400C*** SO-239 base, 6.5' coax & PL-259
**K400CNMO*** NMO base, 6.5' coax & PL-259
**K400-3/8C*** 3/8X24 base, 6.5' coax & PL-259
**K400S[1]** SO-239 base, 13.5' coax & SMA
**K400SNMO[1]** NMO base, 13.5' coax & SMA

* Use C110 for front radio installations.
[1] Includes SMA to UHF adapter.

### K601
**Hide-Away Mount**

Folds antenna safely into trunk. Fully adjustable, fits most vehicles. Recommended antennas: NR2C, NR73BNMO, NR770HNMO, NR770HA, NR70HBNMO, NR770HB, NR770RA, SG7500A, SG7500NMO and SGM510.

**K601M** SO-239 base, 6.5' coax & PL-259
**K601NMO** NMO Base, 6.5' coax & PL-259

### K600
**Variable Angle Trunk Mount**

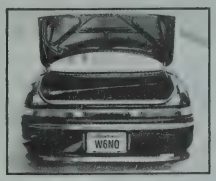
Deluxe aerodynamic trunk mount. Vertical adjustment 0-9º. 4" wide mounting base with 4 set screws for maximum strength. Recommended for high gain VHF/UHF antennas.

**K600M** SO-239 base, 16.5' coax & PL-259
**K600S[1]** SO-239 base, 13.5' coax & SMA

### K540
**Mirror/Luggage Rack Mount**

Adjustable Mirror/Luggage rack mount accepts 1/2" to 7/8" tubing. Fits most mirrors and utility racks. Recommended for antennas under 45".

**K540KM** SO-239 base, 13' coax & PL-259
**K540** Mount Only

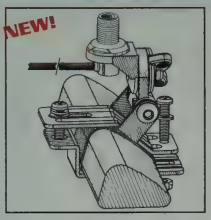



* Use C110 for front radio installations.

### K515
**Universal Luggage Rack Mount**

Ideal for new SUV luggage racks; accepts 3/4" to 2-1/4" in height and up to 2-1/4" wide. Two axis adjustable mount for light-weight VHF/UHF antennas under 45", not requiring RF ground.

**K515S[1]** SO-239 base, 13.5' coax & SMA
**K515SNMO[1]** NMO base, 13.5' coax & SMA




[1] Includes SMA to UHF adapter.

### K550
**Luggage Rack Mount**

Adjustable luggage rack mount for new mini vans. Recommended for antennas under 45".

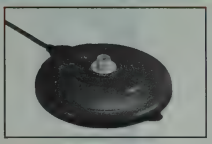
**K550KM** SO-239 base, 13' coax & PL-259
**K550** Mount Only

### K412
**Deluxe Hatchback/Door/ Trunk Lid Mount**

Two-axis adjustable mount for light weight antennas. 1.5 inch mounting width. Ideal for tight mounting options. Recommended for antennas under 45".

**K412C** SO-239 base, 6.5' coax & PL-259
**K412CNMO** NMO base, 6.5' coax & PL-259
**K412S[1]** SO-239 base, 13.5' coax & SMA
**K412SNMO[1]** NMO base, 13.5' coax & SMA

* Use C110 for front radio installations.
[1] Includes SMA to UHF adapter.



### K702M
**Magnet Mount Base**

Deluxe low profile magnet mount with high holding power. Aerodynamic styling, large 6 3/8" dia., 3/4"h. For VHF/UHF antennas up to 50"h. Includes thin mylar protective sheet to enhance grip and protect paint. Cable: 13' RG58A/U & PL-259.

### SPM35
**Magnet Mount Base**

Heavy duty 2.2 lb./4" magnet mount rated 25-500 MHz. Cable: 13' coax and PL-259. Recommended for antennas under 45".

### SPM-NMO
**Magnet Mount Base**

Similar to the SPM35, but has NMO mount.

## C-SERIES CABLE ASSEMBLIES

### C101
SO-239 base, 6.5' RG316 Teflon coax & PL-259. Ideal cable assembly for trunk mount radios.

### C101NMO
Same as C101 with NMO base. For Diamond's K-Series mounts.

### C213
Same as C101, 13.5' length.

### C213NMO
Same as C101NMO, 13.5' length.

### C110
Extension for C101. 10' RG8X coax w/mini UHF Conn. Use C110 to extend cable for front radio installations.

### C110BNC
10' assembly similar to above, uses RG316 Teflon coax terminating in BNC-male.

### C110SMA
Similar to C110BNC, terminating in SMA male.

### C211
SO-239 base, 16.5' cable assembly & PL-259. Combination of C101 & C110.

### C104SMA
4' extension cable for HT's with SMA connector. For existing cable assemblies with PL-259. UHF female (SO-239) to right angle SMA male.

### C105SMA
5' extension cable for C101. RG58/U cable, terminating in right angle SMA male.

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# GAP: THE PERFECT ANTENNA

We at GAP realize there isn't a perfect antenna. No singular antenna will scream DX on 80 and be the best for local nets on 10. If anyone tells you there is, beware! The perfect antenna does not exist, but the right one for you may. If you want something to bust the pile on the low bands, then consider the Voyager. Just starting out in ham radio and need a great general coverage antenna, the Challenger is easy to assemble and for little effort will yield superior performance, especially on DX. Maybe you knowingly or unknowingly moved into one of those "restricted areas" where the Eagle's limited visibility, but unlimited ability is desired.

Eagle DX

Challenger DX

Voyager DX

This chart helps you select the right GAP antenna. When comparing GAPs, bandwidth is not a concern. With few exceptions, a GAP yields continuous coverage under 2:1 for the **ENTIRE BAND**.

All antennas utilize a GAP elevated asymmetric feed. A major benefit is the virtual elimination of the earth loss, so more RF radiates into the air instead of the ground. This feed is why a GAP requires **NO RADIALS**. Just as elevating a GAP offers no significant improvement to its performance, adding radials won't either, making set up a breeze.

**A GAP antenna has no traps, coils or transformers.** This is important. The greatest sources of failure in multiband antennas are these devices. Perhaps you heard someone discuss a trap that had melted, arced or became full of water. Improvements to these inherent problems are the focus of the antenna manufacturer, while the basic design of the antenna remains unchanged. **GAP improved the trap by eliminating it!** Removing these devices means they don't have to be tuned and, more importantly, won't be detuned by the first ice or rain. The absence of these devices improves antenna reliability, stability and increases bandwidth.

Another major advantage to a GAP antenna is its NO tune feature. Screws are simply inserted into predrilled holes with a supplied nutdriver.

The secret is out and people in the know say:

**CQ**–"The GAP consistently outperformed base-fed antennas. ..and was quieter."

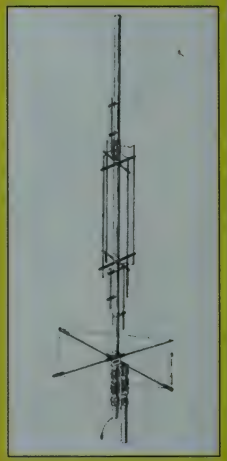
**73**–"This is a real DX antenna, much quieter than other verticals."

**RF**–"To say this antenna is effective would be a real understatement. Switching back and forth on 40m between another multiband HF vertical and the GAP, there was no comparison. Signals were always stronger on the GAP, sometimes by S units, not just DB's."

**Worldradio** – "These guys have solved the problem associated with verticals. That is, an awful lot of RF is wallowing around and dropping into the dirt instead of going outward bound. A half-wave vertical does need radials if it is end fed (at the bottom). But the same half-wave vertical does not (as much, hardly at all) if is fed in the center."

**IEEE**–"Near field and power density analyses show another advantage of this antenna (asymmetric vertical dipole): it decreases the power density close to the ground, and so avoids power dissipation in the soil below it. The input impedance is very stable and almost independent of ground conductivity. This antenna can operate with high radiation efficiency in the MF AM standard broadcast band, without the classical buried ground plane, so as to yield easier installation and maintenance."

Latest Release: **TITAN DX**



This all purpose antenna is designed to operate 10m-80m, WARC bands included. It sits on a 1-1/4" pipe and can be mounted close to the ground or up on a roof. Its bandwidth and no tune feature make it an ideal antenna for the limited space environment as well as a terrific addition to the antenna farm.

| MODEL | BANDS OF OPERATION | | | | | | | | | | | HT | WT | MOUNT | COUNTER-POISE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2m | 6m | 10m | 12m | 15m | 17m | 20m | 30m | 40m | 80m | 160m | | | | |
| Challenger DX | ■ | ■ | ■ | ■ | ■ | | ■ | | ■ | ■ | | 31.5' | 21 lbs | Drop In Ground Mount | 3 Wires @ 25' |
| Eagle DX | | | ■ | ■ | ■ | ■ | ■ | | ■ | | | 21.5' | 19 lbs | 1-1/4" pipe | 80" Rigid |
| Titan DX | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | | 25' | 25 lbs | 1-1/4" pipe | 80" Rigid |
| Voyager DX | | | | | | | ■ | | ■ | ■ | ■ | 45' | 39 lbs | Hinged Base | 3 Wires @ 57' |

GAP

ANTENNA PRODUCTS, INC.
99 N. Willow Street
Fellsmere, FL 32948
tel: (561)-571-9922
web: gapantenna.com

TO ORDER, CALL AES...

**1-800-558-0411**

*See Price List for **GAP** Quick-Tilt Mounts, Counterpoise and Guy Kit Prices*

HUSTLER®

## Model G3-144

The G3-144 is the newest addition to the Hustler Base Station line. Designed with the cost conscious amateur in mind, this small, inexpensive antenna delivers more gain than other antennas in its price range. Ideal for a home or emergency command post

Model G3-144

**ELECTRICAL**
- Frequency Range: 144-148 MHz.
- Gain: 3 dB
- Maximum Power: 1 KW FM
- Bandwidth: 4 MHz
- VSWR: < 1.5:1 @ resonance
- Impedance: 50 ohms

**MECHANICAL**
- Termination: SO-239
- Length: 7' 5"
- Weight: 2.0 lbs
- Wind Survival: 100 mph.
- Wind Area: 0.5 ft.²
- Mounting: 1 to 1 ¾"
- Construction: High strength fiberglass & aluminum.

## Model G6-270R
## Dual band
## 2 Meter & 440 MHz

G6-270R

**ELECTRICAL**
- Frequency range: 144-148 MHz, 435-455 MHz.
- Gain: 6 dB
- Maximum power: 100 Watts
- Bandwidth: 4 MHz – 2 Meters 10 MHz – 440 Meters
- VSWR: < 1.5:1 @ resonance
- Impedance: 50 ohms

**MECHANICAL**
- Termination: N female
- Length: 7' 6"
- Weight: 5.3 lbs.
- Wind Survival: 100 mph
- Wind Area: 1.4 ft.²
- Mounting: Up to 1 ¾"
- Construction: one piece radome

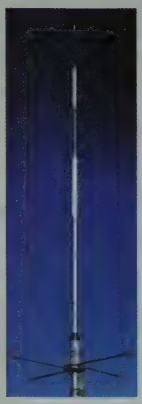
## Model G6-440 (see photo above)

**ELECTRICAL**
- Frequency range: 440 - 450 MHz.
- Gain: 6 dB
- Maximum power: 1 KW FM
- Bandwidth: 10 MHz.
- VSWR: < 1.5:1 @ resonance
- Impedance: 50 ohms

**MECHANICAL**
- Termination: Type N female
- Length: 7' 3"
- Weight: 5.0 lbs.
- Wind survival: 100 mph.
- Wind Area: 1.4 ft.²
- Mounting: Up to 1 ¾"
- Construction: one piece radome

## VHF and UHF Omni Directional Fixed Station Vertical Antennas

## Model G7-144
## Two Meter



The G7-144 is totally self supporting and is easily assembled. When disassembled the longest part is approximately 4' which makes it easy to handle and ship via UPS.

**ELECTRICAL**
- Frequency Range: 144 - 148 MHz.
- Gain: 7 dB
- Maximum Power: 1 KW FM
- Bandwidth: 4 MHz.
- VSWR: < 1.5:1 @ resonance
- Impedance: 50 ohms

**MECHANICAL**
- Termination: N female
- Length: 15' 4"
- Weight: 10.0 lbs.
- Wind survival: 100 mph
- Wind Area: 0.96 ft.²
- Mounting: Up to 1 ¾"
- Construction: High strength fiberglass & aluminum.

## Model G6-144B
## Two Meter (see photo above)

**ELECTRICAL**
- Frequency range: 143 - 149 MHz.
- Gain: 6 dB
- Maximum power: 1 KW FM
- Bandwidth: 6 MHz.
- VSWR: < 1.5:1 @ resonance
- Impedance: 50 ohms

**MECHANICAL**
- Termination: SO-239
- Length: 9' 9"
- Weight: 6.8 lbs.
- Wind survival: 100 mph.
- Wind Area: 1.4 ft.²
- Mounting: Up to 1 ¾"
- Construction: High strength fiberglass & aluminum.

## Model G7-220 (see photo above)

**ELECTRICAL**
- Frequency range: 220 - 225 MHz.
- Gain: 7 dB
- Maximum power: 1 KW FM
- Bandwidth: 5 MHz.
- VSWR: < 1.5:1 @ resonance
- Impedance: 50 ohms

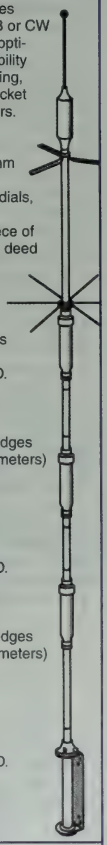
**MECHANICAL**
- Termination: Type N female
- Length: 10' 2"
- Weight: 7.0 lbs.
- Wind survival: 100 mph.
- Wind Area: 0.96 ft.²
- Mounting: Up to 1 ¾"
- Construction: High strength fiberglass & aluminum.

## Fixed Station Multi-Band HF Vertical Antennas

Our exclusive trap design offers the lowest loss possible. A special extrusion process allows us to produce trap covers to an otherwise unattainable close tolerance, assuring accurate and permanent resonance. Our highly accurate traps provide top signal reports and consistent contacts.

Accurate tuning is made possible by the wide range of tuning flexibility designed into our verticals. Not only can you use the normal adjustable tubing to change resonance, but the traps themselves can be field tuned for an additional 2 MHz. shift. This flexibility will enable you to achieve a good S.W.R. even if your installation is not ideal.

- Broadbanded – low VSWR at band edges
- Power capability – full legal limit on SSB or CW
- Solid one inch fiberglass trap forms for optimum electrical and mechanical stability
- Heavy wall, high strength aluminum tubing, heavy duty aluminum mounting bracket and low loss, high strength insulators.
- Stainless steel clamps and hardware.
- Easy assembly and tuning.
- Single line feed with any length of 50 ohm coax.
- Use as ground mount with or without radials, or elevated mount with radials.
- All of the BTVs can be mounted in a piece of PVC and disguised as a flagpole in deed restricted neighborhoods.



## Model 6-BTV

Bands 10-15-20-30-40 & 75 or 80 meters
Length/weight 24 ft. / 16.5 lbs.
Mounting Vertical support up to 1.75" O.D.
Wind Load 29 lbs. @ 70 mph.
Power capability Full legal limit SSB/CW
VSWR at resonance 1.15 to 1 or better
Bandwidth VSWR 2:1 or better at band edges on 10-40 meters (100 KHz. On 75 or 80 meters)

## Model 5-BTV

Bands 10-15-20-40 & 75 or 80 meters
Length/weight 25 ft. 1 in. / 16.5 lbs.
Mounting Vertical support up to 1.75" O.D.
Wind Load 29 lbs. @ 70 mph.
Power capability Full legal limit SSB/CW
VSWR at resonance 1.15 to 1 or better
Bandwidth VSWR 2:1 or better at band edges on 10-40 meters (100 KHz. On 75 or 80 meters)

## Model 4-BTV

Bands 10-15-20-40 meters
Length/weight 21 ft. 5 in. / 15 lbs.
Mounting Vertical support up to 1.75" O.D.
Wind Load 28 lbs. @ 70 mph.
Power capability Full legal limit SSB/CW
VSWR at resonance 1.15 to 1 or better
Bandwidth VSWR 1.6:1 at band edges

## Model 30-MTK

30 meter add on kit for the 4 and 5 BTV

## The Spirit Series

Hustler's ominidirectional, collinear design base station antennas are enclosed in a rugged fiberglass radome that will help minimize pattern variations due to high winds or extreme conditions. We offer these antennas in 144, 220, 440, 900 MHz and 1.2 Ghz. The gain will be unity, 3,6,9, or 12 dB depending on the frequency. Custom frequencies available, call AES for a quote.

**www.new-tronics.com**


**New-Tronics Antenna Corporation**
One New-Tronics Place
Mineral Wells, Texas 76067-9563

Phone: **940.325.1386**
Toll Free: **877.994.9499**
Fax: **940.328.1409**

# VHF and UHF Mobile Antennas

## Unity Gain

**THF**

**VHF/UHF Trunk Lip Mount Antennas.**

- Frequency range: 140-500 MHz
- ¼ wave length
- Cut length for low VSWR
- 15 ft RG58/U with PL-259 connector

**UHT-1**

**VHF/UHF Roof/Deck Hole Mount Antenna.**

- Frequency range: 140-500 MHz
- ¼ wave length
- Cut length for low VSWR
- 15 ft RG58/U

**UGM**

**VHF/UHF Magnetic Mount Antenna**

Extend the range of handheld or portable radios. Trimmable 17-7 PH stainless steel radiator is cut to ¼ wavelength for low SWR and unity gain from 140 to 500 MHz. Trim chart included. Highly efficient mylar protected magnetic mount attaches conveniently to magnetic compatible surfaces. No drilling! Supplied ready for operation with 10 ft. of mini-coax with BNC connector

**MKR-2 Radial Kit**

Used to convert RX, SF & CG series coils to fixed station operation. Mount can accept any 3/8x24 threaded coil and contains three radials

MKR-2

## Collinear

### Series Fed Mobile Antennas

**SF-2 144 MHz 3.4 dB**
**SF-220 220 MHz 3.4 dB**

- Power rating: 100 watts
- 3/8" x 24 thread
- 5/8 wave

**RX-2 144 MHz 3.4 dB**
**RX-220 220 MHz 3.4 dB**
**RX-440 440 MHz 5.0 dB**

- Coil same as above
- 3 oz magnet
- 15 ft RG-58/U coax
- PL-259 connector

### Collinear High Gain Mobile Antenna

**CG-144 5.2 dB 6 MHz Bandwidth**
**CG-220 5.2 dB 4 MHz Bandwidth**

- Power rating: 200 watts
- 3/8"x24 thread
- 5/8 over ¼ wave
- Collinear design

**CGT-144 5.2 dB 6 MHz Bandwidth**
**CGT-220 5.2 dB 4 MHz Bandwidth**

- Coil same as above
- Swivel ball for vertical positioning
- Quick disconnect for easy removal
- Trunk mount base
- 17 ft RG58/U coax
- PL-259 connector


**New-Tronics Antenna Corporation**
One New-Tronics Place
Mineral Wells, Texas 76067-9563


## MX Series NMO Magnetic Mount Antenna

| | | |
|---|---|---|
| MX-2 | 144 MHz | 3.4 dB |
| MX-220 | 220 MHz | 5.0 dB |
| MX-440 | 440 MHz | 5.0 dB |

- Power rating: 200 watts
- Chrome top
- NMO style coil
- 10 oz magnet
- 17 ft RG58/U coax & PL-259 connector

| | | |
|---|---|---|
| MX-2B | 144 MHz | 3.4 dB |
| MX-440B | 440 MHz | 5.0 dB |

- Same as above but all black coil

## BBG Series NMO Swivel Ball & Spring Antenna

**BBG-144** 3.4 dB
**BBG-440-5** 5.0 dB

- Power rating: 200 watts
- NMO style coil
- Chrome top, swivel ball and spring

**BBGT-144** 3.4 dB
**BBGT-440-5** 5.0 dB

- Same coil as above
- Includes Trunk mount
- 17 ft RG58/U coax & PL-259 connector

## Dual Band 2 meter/ 70cm Mobile Antennas

Hustler's new Dual Band antennas are designed to perform even in the toughest environments. Base coils are ultrasonically welded to ensure mechanical integrity and durability.

**LMC-270**

- 2.4 dB/4.0 dB gain
- Power rating: 100 watts
- NMO style coil
- Coil and whip only

**MX-270**

- 2.4 dB/4.0 dB gain
- Power rating: 100 watts
- NMO style magnetic mount
- 17 ft RG58/U coax & PL-259 connector

## LM Series NMO Coils

LMG, LMC AND LMB Antennas are coil & whip only and require an NMO mount.

| | |
|---|---|
| LMG-144 | 3.4 dB gain |
| LMG-440-5 | 5.0 dB gain |

- Power rating: 200 watts
- NMO style coil
- Chrome top and bottom
- Contact-silver plated push pin

| | |
|---|---|
| LMC-144 | 3.4 dB gain |
| LMC-440-5 | 5.0 dB gain |

- Power rating: 200 watts
- NMO style coil
- Black coil with chrome top

| | |
|---|---|
| LMB-144 | 3.4 dB gain |
| LMB-440-5 | 5.0 dB gain |

- Power rating: 200 watts
- NMO style coil
- Black coil

HUSTLER®

## Scanner Base Station Antenna

Hear more at a greater distance with Hustler's external omnidirectional scanner antennas.

**DCX**

- 40 – 950 MHz
- Vertically polarized
- Mounts to 1 ¼" OD mast or flat surface
- 55" cone elements
- 20" disc elements
- Solid aluminum rod for high strength design
- Hardware & mount included

**DCL**

- Same as DCX
- 50 ft RG58/U coax with PL-259 on one end and BNC or Pin plug on the other end

## Mobile Scanner Antenna

Hear all of the action in your car. Covers 30-50, 148-174, 430-450, 800-950 MHz

**MRM**

- 3 oz Magnet mount
- 12 ft RG58/U coax
- Available with BNC or Pin plug connector

**MOT**

- Trunk mount
- 15 ft RG58/U coax
- Available with BNC or Pin plug connector

**MOR**

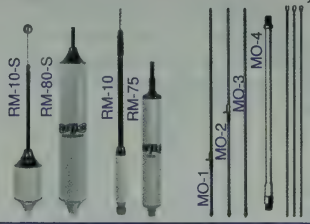
- ¾" Roof or deck mount
- 12 ft RG58/U coax
- Available with BNC or Pin plug connector


Phone: 940.325.1386
Toll Free: 877.994.9499
Fax: 940.328.1409

# Amateur HF Mobile 10,12,15,17,20,30,40,60,75 and 80 Meter

If you are serious about HF mobile operation the **Hustler** HF Mobile System is the obvious choice. **Hustler** manufactures and sells more HF mobile antennas world wide than anyone. No other manufacturer offers the convenience, the flexibility or the pure performance that **Hustler** does. Our HF Mobile System offers a wide variety of components which enable you to customize your installation to fit your present and future needs. A choice of four different support masts provides an installation solution for every vehicle. A selection of eighteen interchangeable resonators in high and moderate power levels and varying bandwidths are available. A full complement of accessories such as springs, a multiband adapter and a quick disconnect device complete the system. Experience the satisfaction that comes with owning the best in the world — the **Hustler** HF Mobile System.

| | Model | Band | Power SSB | Bandwidth 2:1 SWR | Weight lbs |
|---|---|---|---|---|---|
| RM-10 | Standard | 10 m | 400 W | 150-250 KHz | 0.41 |
| RM-11 | Standard | 11 m | 400 W | 150-250 KHz | 0.41 |
| RM-12 | Standard | 12 m | 400 W | 90-120 KHz | 0.41 |
| RM-15 | Standard | 15 m | 400 W | 100-150 KHz | 0.42 |
| RM-17 | Standard | 17 m | 400 W | 120-150 KHz | 0.44 |
| RM-20 | Standard | 20 m | 400 W | 80-100 KHz | 0.46 |
| RM-30 | Standard | 30 m | 400 W | 50-60 KHz | 0.84 |
| RM-40 | Standard | 40 m | 400 W | 40-50 KHz | 0.84 |
| RM-60 | Standard | 60 m | 400 W | 40-50 KHz | 0.84 |
| RM-75 | Standard | 75 m | 400 W | 25-30 KHz | 1.05 |
| RM-80 | Standard | 80 m | 400 W | 25-30 KHz | 1.05 |
| RM-10S | Super | 10 m | 1 kW | 250-400 KHz | 1.00 |
| RM-11S | Super | 11 m | 1 kW | 250-400 KHz | 1.00 |
| RM-15S | Super | 15 m | 1 kW | 150-200 KHz | 1.20 |
| RM-20S | Super | 20 m | 1 kW | 100-150 KHz | 1.25 |
| RM-40S | Super | 40 m | 1 kW | 50-80 KHz | 1.80 |
| RM-75S | Super | 75 m | 1 kW | 50-60 KHz | 2.10 |
| RM-80S | Super | 80 m | 1 kW | 50-60 KHz | 2.10 |




## Mobile HF Antennas
### Hustler Masts

**MO-1**
Mobile mast 54" length, for bumper, fender or hitch mounting. Folds over at 15" above base. Made of highest quality heat treated Stainless steel and aluminum parts. 3/8" x 24 threaded

**MO-2**
Mobile mast, 54" length, for bumper, fender or hitch mounting. Folds over at 27" above base. 3/8" X 24 threaded

**MO-3**
Mobile mast, 54" length, for bumper. fender or hitch mounting. solid aluminum with white vinyl coating. Does not fold over. 3/8" X 24 threaded

**MO-4**
Mobile mast 22" length, trunk or deck mounting. Three retuning tip rods included. 3/8" X 24 threaded

### Professional Chrome Series

**C-32**
Chrome plated 1 ½" ball mount. Furnished complete with rubber pad, steel backup plate, all mounting hardware and hex key.

**C-30**
Chrome plated 4" spring. Copper braided center conductor to prevent detuning. Accepts 3/8" x 24 antennas

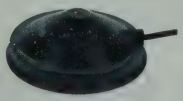
**C-29**
Stainless steel 4" spring. Copper braided center conductor to prevent detuning. Accepts 3/8" x 24 antennas

### Resonator Spring

**RSS-2**
Finest quality stainless steel spring for use between resonator and Hustler antenna mast. This 3" spring absorbs shock when the antenna strikes overhanging obstructions. Supplied ready for easy installation with 3/8" x 24 threads, female on one end, and male on the other. Copper braided center conductor to prevent detuning.

### Magnet Mount

**MBM "Super" Magnet**

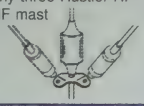


- 95 lbs. Pull strength
- Powerful 5 inch diameter magnet
- 8 pole magnet
- 16 feet RG 58/U coax with PL-259 connector.
- 3/8" x 24 female threads
- Recommended for antennas up to 48".

### Quick Disconnect

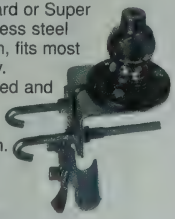
**QD-2**
100% Stainless Steel. Remove antenna from mount in seconds with push and twist release. Every part including the compression spring is manufactured from the best available 100% stainless steel. Special design of enclosed compression and lock assembly assures freedom against ice and dirt jam up. Accommodates small, medium and large mobile antennas. Equipped with 3/8" x 24 threads, female on one end and male on the other.

**VP-1**
Automatic bandswitching using any three Hustler HF resonators. Adapts any Hustler HF mast to tri-band operation. No additional tuning necessary.



### Bumper Mount BM-1

Design is rugged for supporting Hustler antennas with the Standard or Super resonators. Heavy stainless steel strap, stronger than chain, fits most bumpers inconspicuously. Assembly is easily installed and held rigid by "J" bolts at the top and a bumper strap clamp at the bottom.



### Professional Stainless Steel Series

**SSM-1**
Heavy-duty mount with 4" stainless steel spring with copper braided center conductor to prevent detuning. 180 degree adjustable 2" diameter stainless steel ball. Accepts 3/8" x 24 antennas

**SSM-2**
Heavy-duty 2" diameter stainless steel ball mount. 180 degree adjustable. Accepts 3/8" x 24 antennas.

**SSM-3**
Heavy-duty stainless steel 4" spring with 3/8" x 24 coupling stud. Copper braided center conductor to prevent detuning.

**HLM** Trunk lip mount designed for hatch and slanted back vehicles. 180 degree 1" diameter ball, which accepts 3/8 x 24 antennas. RG58/U coax with PL-259 connector.

**TLM** Trunk lip mount, which accepts 3/8 x 24 antennas. RG58/U coax with PL-259 connector.

**HOT** Trunk lip mount with easy off/on by using thumb knob. 180 degree 1" diameter ball, which accepts 3/8 x 24 antennas. RG58/U coax with PL-259 connector.

**RVM** Recreational vehicle mount with heavy duty bracket. Easy antenna removal or lay down with thumb knob. 1" ball that accepts 3/8 x 24 antennas. RG58/U coax with PL-259 connector.

## 2M/70CM Dual Band Series Antennas

Radiall/Larsen dual band antennas provide excellent performance for simultaneous use of VHF and UHF amateur frequencies. Each Radiall/Larsen dual band antenna is factory preset to guarantee optimum performance with no tuning required.

**NMO-2/70-SH ..... $40.99**
Freq: 144-148/440-450 MHz
Gain: Unity
Power: 100 Watts
Type: VHF: Center Loaded 1/4
UHF: Center Loaded 3/4
Base: NMOUHFBASEB w/spring
Height: 17"
Whip: WNMO2/70SH
Lower profile amateur 2m/70cm dual band antenna with spring for NMO mounts.

**NMO-2/70B (black) ..... $65.99**
Freq: 144-148/440-450 MHz
Gain: 2.4/4dB
Power: 100 Watts
Type: VHF: 5/8 Wave
UHF: Collinear
Base: NMO2/70BCO
Height: 33.5"
Whip: W2/70B
Amateur 2m/70cm dual band antenna for NMO mounts. Available in chrome (below).

**NMO-2/70C (chrome) ..... $60.99**
Freq: 144-148/440-450 MHz
Gain: Unity
Power: 100 Watts
Type: VHF: 5/8 Wave
UHF: Collinear
Base: NMO2/70BCO
Height: 36.75"
Whip: W2/70
Amateur 2m/70cm dual band antenna for NMO mounts. Available in black (above).

**MM-2/70PL ..... $50.99**
Freq: 144-148/440-450 MHz
Gain: Unity
Power: 100 Watts
Type: VHF: Center Loaded 1/4
UHF: Center Loaded 3/4
Base: 3' Round Mag Mount
Height: 17"
Whip: WNMOQ2/70B
Complete 2m/70cm magnetic moung antenna with 12' of RG58A/U coax.

**NMOQ-2/70-B (black) ..... $36.99**
Freq: 144-148/440-450 MHz
Gain: Unity
Power: 100 Watts
Type: VHF: Center Loaded 1/4
UHF: Center Loaded 3/4
Base: NMOUHFBASEB
Height: 18"
Whip: WNMOQ2/70B

## Kulglass Series High Performance Glass Mount Antennas

Radiall/Larsen's Kulglass™ (KG) series uses a patented low impedance design and advanced materials to produce the world's best on-glass antenna. The KG uses advanced resin polymer plastic to completely enclose the circuit board or loading coil for mechanical durability and weather resistance. 3M's best adhesive tape, plus Radiall/Larsen's unique bonding enhancer ensure the best possible grip to the glass.

**KG-2/70-CX-PL ..... $116.99**
Freq: 144-148/442-448 MHz
Gain: 2.4/4.5dB*
Power: 50 Watts
Type: VHF: 1/2 Wave
UHF: Collinear
Base: KG2/700/S
Height: 32.5"
*Ground plane required for gain
Glass mount dual band antenna for 2m/70cm amateur radio frequencies.

**KG-144-UD-PL ..... $83.99**
Freq: 144-160 MHz
Gain: 2.4dB
Power: 100 Watts
Type: 1/2 Wave
Base: KG1440/S
Conn: PL-259
Height: 48"
Whip: WKG144
Complete KG glass mount antenna.

**KG-220-UD-PL ..... $83.99**
Freq: 220-225 MHz
Gain: 2.4dB
Power: 100 Watts
Type: 1/2 Wave
Base: KG2200/S
Conn: PL-259
Height: 26.5"
Whip: WKG220
Complete KG glass mount antenna.

**KG-440-UD-PL ..... $71.99**
Freq: 440-460 MHz
Gain: 2.4dB
Power: 100 Watts
Type: 1/2 Wave
Base: KG4400/S
Conn: PL-259
Height: 15"
Whip: WKG440
Complete KG UHF glass mount antenna with coax and connector.

## Tri-Band Scanner Antenna

**NMO-150450800 ..... $29.99**
Freq: 150-165/450-470/806-940 MHz
Gain: 2.14 dBi
Type: Tri-Band Scanner Only
Mount: NMO
Height: 16.5"

## Radiall/Larsen Exclusive Kulduckie Portable Series

Superior transmit range and tough mechanical durability are the hallmark of Radiall/Larsen portables. All center cores are made of brass or copper plated steel to maximize RF emission. Fully soldered connections and silver-plated components improve electrical efficiency. Double spring BNC's also reduce wear on the mount. Other styles available.

**KD4-146-HQ (2m) ..... $25.99**
Freq: 144-148 MHz
Gain: Unity
Power: 25 Watts
Type: 1/4 Wave Helical
Conn: BNC
Height: 8"

**KD-14-2M-HW ..... $38.99**
Freq: 144-148 MHz
Gain: Unity
Power: 25 Watts
Type: 1/2 Wave Telescoping
Conn: BNC
Height: 8.5 to 42"
Whip: WKD142MHW

**KD4-2/70 ..... $36.99**
Freq: 144-148/442-448 MHz
Gain: Unity
Power: 25 Watts
Type: VHF: Loaded 1/4 Wave
UHF: 1/4 Wave
Conn: BNC
Height: 8"
Impedance matching transformer provides high Q and deeper resonance.

## Industry's Best NMO Mobile Antennas

Radiall/Larsen's own version of the standard 3/4" Motorola TAD/TAE type mount uses advanced design, materials and construction to provide a premium mount. For demanding outdoor applications, the chemical resistant NMO series is housed in a resin polymer plastic shell which is completely molded around the nickel plated brass whip stud to eliminate moisture damage. Our superseal gasket also greatly reduces water intrusion under the base.

**NMO-27C (chrome) ..... $33.99**
Freq: 27-31 MHz
Gain: Unity
Power: 200 Watts
Type: Loaded 1/4 Wave
Base: NMO27BCO
Height: 53"
Whip: W490

**NMOQ-SPEC ..... $13.99**
Freq: 136-512 MHz
Gain: Unity
Power: 200 Watts
Type: 1/4 Wave
Height: 21"

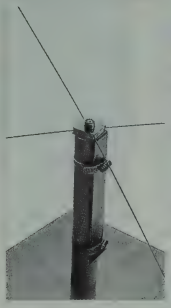
**NMO-150C (chrome) ..... $30.99**
**NMO-150B (black) ..... $33.99**
Freq: 144-174 MHz
Gain: 3dBd
Power: 200 Watts
Type: 5/8 Wave
Base: NMO150BCO
Height: 51.75"
Whip: W490

**NMO-220C (chrome) ..... $30.99**
**NMO-220B (black) ..... $36.99**
Freq: 220-225 MHz
Gain: Unity
Power: 200 Watts
Type: 5/8 Wave
Base: NMO220BCO
Height: 34.5"
Whip: W400

**NMO-440C (chrome) ..... $29.99**
**NMO-440B (black) ..... $35.99**
Freq: 440-460 MHz
Gain: 4.5dBd
Power: 200 Watts
Type: 5/8 over 1/2 Wave
Base: NMOUHFBASEB
Height: 33"
Whip: W154

## Base Station Antennas

Radiall/Larsen manufactures a variety of small base station for directional and omni-directional applications. Each base station antenna is designed with premium materials to withstand the most demanding weather conditions. All base station antennas come with mounting hardware to attach to a pole up to 2" in diameter.



**BSA-K ..... $53.99**
Freq: 144-512 MHz
VSWR: 1.5:1 or less
Power: 200 Watts
Conn: UHF Female
Whip: 51-3/4"

Complete base station kit for designing a base station unit from 144-512 MHz. Comes with mounting hardware (antenna is extra). Works with NMO and UHF mount antennas.

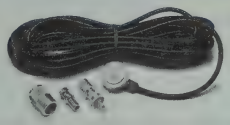
## Mobile GPS Antenna

**GPS-NMO02 ..... 79.99**
Freq: 1575.4 MHz
Gain: 5 dBic/28 ±2 dB (LNA)
Voltage: 5 VDC
Type: GPS NMO mount
Height: 1.3" high x 2.9" diameter

## Mounts

Larsen has a full line of permanent and temporary mounts to solve nearly every installation problem. Each mount is manufactured of the highest quality materials, including premium coax.

**NMO-K ..... $15.99**
Motorola style
roof mount
Size: 3/4"
Coax: 17' RG-58A/U
Conn: PL-259

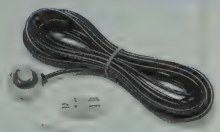


**NMO-MM ..... $32.99**
Motorola style
magnetic mount
Size: 3-1/2" x 3"
Rectangle
Coax: 12' RG-58A/U
Conn: 58FCP
Pull Strength: 90 lbs.

**More RADIALL/LARSEN**
*See listing in Price Guide*

**NMO-TLP ..... $29.99**
Motorola style
trunk lip bracket,
black
Size: 1-3/4" x
1-3/4"
Coax: 17' RG-
58A/U
Conn: PL-259

**PO-K ..... $30.99**
SO-239 female type
roof mount
Size: 3/4" hole
Coax: 17' RG-58A/U
Conn: PL-259



**PO-MM ..... $36.99**
SO-239 female type
magnetic mount
Size: 3-1/2" x 3"
Rectangle
Coax: 17' RG-58A/U
Conn: 58FCP
Pull Strength: 90 lbs.

**TMB-34 (chrome) $5.99**
**TMB-34B (black) $7.99**
Trunk mounting bracket
for NMO antenna.
Size: 1-5/8" x 1-5/8"
Mount: NMO

## Parts and Accessories

**W-490 ..... $9.99**
Chrome .100 tapered replacement whip
for 144 MHz. (49")

**W-490B ..... $12.99**
Black .100 tapered replacement whip
for 144 MHz. (49")

**W-2/70B ..... $27.99**
Black .100 dia. replacement whip
for NMO 2/70B (approx. 31")

**RADIALL/LARSEN**
antenna technologies

**Radiall/Larsen Antenna Technologies**
3611 NE 112th Avenue
Vancouver, WA 98682
360 944-7551, Fax: 360 944-7556
Email: info@radialllarsen.com
Web: www.radialllarsen.com

# ISOTRON
## BILAL COMPANY

*See product reviews* **73 Magazine:** Oct. '84, Sept. '85, Mar. '86, Nov. '94, Apr. '96. **CQ magazine:** Dec. '88. **WR:** Mar '91.
Copies available send SASE: **BILAL COMPANY**
137 Manchester Dr. Florissant, CO 80816 • **719/687/0650**

**Antennas for Very Limited Space**
***Simple & Effective...***

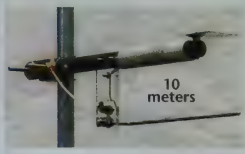
*2002 – Our 22nd Year!*

- Solve restricted space problems.
- Easy, quick, and simple installation.
- Handles up to 1,000 watts PEP.
- Excellent portable operation - emergencies, RV's, field day, motels, Maritime operation.
- Not dependent on a grounding system for performance.
- Unobtrusive appearance, making a very discreet looking installation.
- Very Stealth.
- Excellent Low Noise reception and transmitting quality performance is not compromised by its compact design.
- Tunes and performs without radials.
- Multi-band operation on one feedline with back to back mounting. Any other combination of three bands may be substituted on special order.
- Durable construction, can be used in extreme weather conditions, will not bend in high winds. No motors or mechanical tuning devices to fail.

**Common Specifications:** 1000W PEP power rating (300W, CW, AM, FM, RTTY) • 50–75Ω coax feed • Omni-directional radiation pattern • Bandwidth shown is within 2:1 SWR but may vary with environment • Stainless steel fasteners • Zinc plated u-bolts • Tempered aluminum components • Cast acrylic and PVC insulators • THHN #14 solid copper coils • 85 mph wind rating

**Individual Specifications:**

| Model | 160C | 80 | 40 | 20 | 15 | 10 | 6 |
|---|---|---|---|---|---|---|---|
| Band | 160 meters | 80 meters | 40 meters | 20 meters | 15 meters | 10 meters | 6 meters |
| Freq. (MHz) | 1.8-2.0 | 3.5-4.0 | 7.0-7.3 | 14-14.35 | 21-21.450 | 28-30 | 50-54 |
| hxwxd (in.) | 114 x16x15 | 32x16x15 | 22x16x15 | 21x8x4 | 21x1½x4 | 16x1½x4 | 16½x2x4 |
| BW | 100kHz | 110kHz | 250KHz | 350kHz | 450kHz | 1MHz | 1.25MHz |
| Windload (sq. ft.) | 1.697 | 1.37 | 1.0 | 0.23 | 0.23 | 0.16 | 0.13 |
| Weight | 7 lbs. | 6 lbs. | 4 lbs | 2 lbs | 2.0 lbs | 1.5 lbs | 1.5 lbs. |
| **PRICE** | **$173.99** | **$98.99** | **$88.99** | **$78.99** | **$78.99** | **$78.99** | **$78.99** |



**Multiband Models (top & right)**

**80/40 COMBO** Same as individual model specifications above. Operate 80/40 meters with one feed line 32"x16"x30", 2.37 sq. ft. 10 lbs..... **$177.99**

**20/15/10 COMB** Covers same as individual model specifications above. Operates 20/15/10 meters with just one feed line..... **$198.99**

*SPECIAL ORDER!* – **You can make up your own combination. Substitute 30m for 40m in the 80/40 Combo or 17m for 15m in the 20/15/10 Combo. MARS, CAP and Commercial models available.**

# Van Gorden Engineering

## DIPOLE ANTENNAS

Complete with Hi-Q 1:1 balun, #14 stranded copper antenna wire, plastic insulators, and 100 ft. of nylon rope. Rated for full legal power. May be used in an inverted-V configuration.

**D-80** 80m, 130' ..... **$32.99**
**D-40** 40m, 66'..... **29.99**
**D-20** 20m, 33'..... **28.99**
**D-15** 15m, 22'..... **27.99**
**D-10** 10m, 16'..... **26.99**

**Shortened Dipoles** Construction is the same, and includes traps as shown above.

**SD-80** 80m, 90'..... **$36.99**
**SD-40** 40m, 45' ..... **34.99**

**ALL BANDER** **All Bander Dipole** Covers 160 to 10M using an antenna tuner with balanced output. Full 135 ft. long (or less, as an inverted V or sloper). Trim to fit small lots. Assembled, with #14 gauge copper wire, center and end insulators and 100 ft. of 450Ω balanced line. 2KW PEP..... **$29.99**

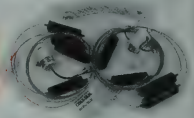
**SHORTY** **All Bander** As above, but with loading coils to shorten the length to 70' overall... **$44.99**

## MULTIBAND ANTENNAS

**G5RV** Covers 3.5–30MHz, plus 1.8MHz as a Marconi-type antenna with a tuner. Consists of a 102 ft. flat top with a 31' long section of 300Ω (450Ω for models below) KW twinlead, a transformer/coupler and 70 ft. of RG-8X coax and connector. 2KW PEP, assembled..... **$50.99**

**G5RV JR** 7–30MHz , 52', 17' twinlead ..... **24.99**
**G5RV-E** 3.5–30MHz, 102', 31' twinlead ..... **28.99**
**G5RV-M** 1.8–30MHz, 204', 65' twinlead .... **50.99**

**ANTENNA SUPERMARKET**



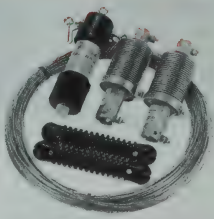
**EAVES TWIN** **The Eavesdropper Shortwave Broadcast Receiving Antenna** A 42 ft. long center-fed dipole with 8 automatic bandswitching trap circuits which electrically separate the antenna segments – just tune your receiver to the desired band. The Eavesdropper covers the 11, 13, 16, 19, 21, 25, 31, 41, 49, 60, 75 and 90 meter bands. Includes The Zap-Trapper® gas-tube lightning arrestor for receiver protection and 50 ft. of 450-pound test support rope. Completely assembled, ready to use. With 100' of 72Ω twin lead..... **$89.99**

**EAVES SO239** With weather-proofed SO-239 coaxial center connector, coax not included . **$89.99**

# DIAMOND ANTENNA

**D-130J** **Super Discone** Copied by many, equaled by none. Professional quality. Ultra-wideband omnidirectional – receives amateur, air traffic control, police, fire and other utilities from 25-1300MHz. Can transmit 80-1300MHz (50MHz with adjustment). Rustfree stainless steel employed in major component parts. Ideal antenna for scanners and receivers. Use standard RG213 or RG8X coax. Mast mounting U-bolts included. 67"h, 2.2 lbs..... **$89.99**

# UNADILLA



**W2AU/W2VS** **5 Band Antenna Kit** Resonant on 40 and 80M. SWR on 10, 15 and 20M will be higher (2:1 to 4:1) and a transmatch may be necessary to operate these bands. Includes 40M traps, W2AU balun, end insulators and 120 feet of #14 stranded antenna wire. Rated 2KW PEP, 110 feet long..... **$85.99**



AES
Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

www.iacantennas.com

**Double Bazooka Half Wave Antennas** extremely broad banded that they can operate efficiently across the entire Ham band with little change to SWR. IAC's design results in quiet, broadband operation with 98% efficiency and a 50Ω SO-239 balanced feedpoint without a balun. Mount horizontally or inverted V. Handles full legal limit.

**160M Bazooka** 1.8MHz (160M), 248'. **$214.99**
**80M Bazooka** 3.5MHz (75-80M), 121'... **150.99**
**40M Bazooka** 7MHz (40M), 64'..... **126.99**

**Double Bazooka Shorty Antennas** utilize a unique High Q coil design coupled with the already proven Double Bazooka characteristics providing maximum radiation efficiency and broad bandwidth. Mount as inverted V. Handles full legal limit power. Operates efficiently on other bands with tuner.

**160M BAZ SHORT** (160M), 168' ..... **$229.99**
**80M BAZ SHORT** (75-80M), 84'..... **$159.99**
**40M BAZ SHORT** (40M), 40'..... **$129.99**

**Half Sloper Antennas** are a quarter wavelength long and look like half of the Double Bazooka (pictured). Mounts from a tower or vertical metal support. Feeds directly with 50Ω coax utilizing SO-239 connection. Handle full legal power. Operate efficiently on other bands with tuner.

**160M-S** 160M, 127 ft..... **$140.99**
**80M-S** 75-80M, 67 ft., operates 80-10m with antenna tuner ..... **$115.99**

## hy-gain

**HF Vertical Antenna** Effective counterpoise replaces radials and ground system • Automatic bandswitching with a single coax cable feed. Each band is individually tunable. Extra wide VSWR bandwidth. End fed with broadband matching unit. DC grounded. • Low angle of radiation - 17° for exciting DX. • 2.5 sq. ft. wind surface area • Small area required for mounting easily on roofs, decks and patios. • Handles full legal limit 1500W key down for two minutes • Aircraft quality aluminum tubing, stainless steel hardware; 80 mph wind survival.

**AV-620** 20-6M 6-Band No traps, coils or radials. 22.5' tall, 10.5 lbs..... **$269.99**

**AV-640** 40-6M 8-Band Uses 1/4-wave stubs on 6 thru 17M and end loading and capacity hats on 15 thru 40M. 25.5' tall, 17.5 lbs ..... **$359.99**

## SOLARCON ANTENNAS A99

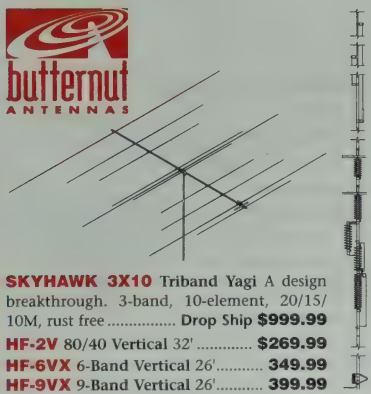
**A-99 10M Base Antenna with Twin Ring Adjust-A-Match Tuning** Voltage-fed, half wave variable, mutual transfer inductance tuned antenna. It's economical and easy to use! The SOLARCON sealed base unit is tuned with external inductance rings. Impedance remains constant over the tuning range. Simple Tuning! Raising the tuning rings raises the frequency and lowering the rings lowers the resonant frequency.

Rugged, three-piece, white fiberglass construction with triple-plated brass fittings. It's easy to assemble and install. The optional GPK-1 ground plane radial kit makes it perform even better!

• Full 10 meter band coverage • 3 dBi gain • 2kW power limit • Low angle of radiation for DX • DC grounded • Mounts on 1.5 in. mast • Uses 52Ω coaxial cable with SO-239 connector • 17 ft. 8 in. length..... **$64.99**

**GPK-1 Groundplane Kit** Use with the A-99 for 30% more power gain and lower angle of radiation. Collar and 4 fiberglass radials..... **$39.99**

## butternut ANTENNAS

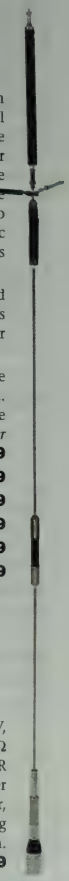


**SKYHAWK 3X10 Triband Yagi** A design breakthrough. 3-band, 10-element, 20/15/10M, rust free ..... **Drop Ship $999.99**
**HF-2V** 80/40 Vertical 32' ..... **$269.99**
**HF-6VX** 6-Band Vertical 26'..... **349.99**
**HF-9VX** 9-Band Vertical 26'..... **399.99**

## COMET™

### HF/VHF/UHF MOBILE ANTENNA

**For radios that operate HF/6M/2M/70cm**



**UHV-6** Designed for 6 and 2M and 70cm basic operation without tuning. Additional coverage for 40, 15 and 10 meters may be added by installing the supplied coils for those bands. Coils for 20, 17, and 80M are optional. Choose either one, two, or three coils and add one to the top, and one or two to the side, in any combination. Automatic bandswitching. Each HF element tunes independently without effecting VHF/UHF.

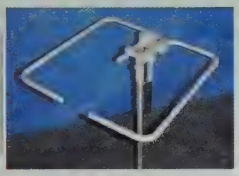
Only 7 ft. 2 in. tall with the 40M coil attached to the top. A unique fold-over hinge pivots approximately 5 inches from the bottom for garaging, entering parking structures, etc.

Installs on any standard SO-239 (PO) type mount; no special brackets are needed. Several duplexers/ triplexers are available for all multiband radios. – *see the index under duplexers for selection*..... **$149.99**

**L-3.5** 80M coil ..... **34.99**
**L-14** 20M coil ..... **29.99**
**L-18** 17M coil ..... **29.99**
**CF-530** 1.3-90/125-470MHz dplxr . **69.99**
**CF-706A** 1.3-56/75-470MHz duplr **69.99**

**CA-52HB4 Wide Band 6M Beam** HB9CV, 4-element • 50MHz band frequency • 50Ω impedance • <1.5:1 (50-54 MHz) VSWR • 10.4dBi • Half power angle <54° • Over 19dB F/B ratio • 400W maximum power, SSB • Boom length, 10.5 ft. • 7.3 ft. turning radius • SO-239 connector • 1.0 to 2.5 in. mast diameter • 4 lbs, 14 oz..... **$119.99**

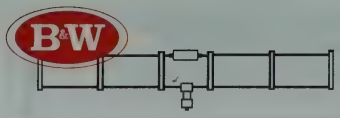
## M²



**HO Loops** At times, when using highly directional VHF or UHF antennas, there are signals you cannot hear off the sides and back. The addition of an HO-Loop to your set-up will enable you to be aware of those stations you may be missing. Great for round tables, nets and monitoring for band openings.

HO-Loops are horizontally polarized and omnidirectional, ideal for mobile or base operation with contacts up to 200 miles not uncommon. Typical gain is 4.0+ dBd, and power rated at 800W or 1.5kW stacked. They're easily adjustable and have a wide bandwidth that ensures high performance regardless of the weather.

**6M-HO-LOOP** 50-50.3MHz, 29.5" sq.... **$113.99**
**2M-HO-LOOP** 144-144.5MHz 11.25" sq.... **49.99**
**222-HO-LOOP** 220-224MHz, 7.75" sq ..... **49.99**
**432-HO-LOOP** 430-436MHz, 4.4" sq ..... **49.99**



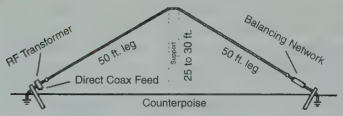

## BROADBAND ANTENNAS

• MARS, ARES, RACES, CAP, Amateur – One antenna does all "out of band" frequencies! Single antenna solution for regular amateurs • Low cost – Compared to multiband antennas. Utilize one antenna instead of several. No need for an antenna tuner or antenna switches. • Performance – Not limited to conventional ham bands. Operate on any frequency in the antenna's bandwidth, and have VSWR of 2:1 or better. • Low Noise – Capture weak signals in receive mode. Better performance than any vertical and very reliable. • Simple to Use – Work any frequency you want with low SWR without measurements and tuning.

## BROADBAND FOLDED DIPOLES

These antennas operate all HF frequencies continuously within their design range without an antenna tuner, plus 6M with a tuner. Install as flat top, inverted vee, or sloper. Constructed of #14 stranded copperweld or stainless steel wire. Unbalanced 50Ω input with SO-239 connector. Shipped completely assembled. Handles 2 KW PEP.

**BWD-20** 14-30, 20 ft., copperweld .....**$179.99**
**BWD-45** 7-30, 45 ft., copperweld .....**$189.99**
**BWD-65** 4-30, 65 ft., copperweld .....**$199.99**
**BWD-90** 1.8-30, 90 ft., copperweld .....**$209.99**
**BWDS-65** 4-30, 65 ft., stainless.....**$319.99**
**BWDS-90** 1.8-30, 90 ft., stainless.....**$339.99**
**FDMK Folded Dipole** 3-pole mtg. kit.....**$39.99**




## BROADBAND END-FED VEE ANTENNA

Unique design, covers 1.8-30MHz continuous, with a VSWR of <2:1 without an antenna tuner, 6M with a tuner. Installs with termination at both ends by ground stakes (not included), and the center about 25' above the ground. Omnidirectional, high angle radiation at lower frequencies. Increased angle from 5-15MHz, above 15MHz more directional in the line of the antenna wire. In limited space, wire may be shortened without greatly affecting the VSWR, but lowering radiation efficiency. Excellent EMI rejection and is extra quiet to capture weak signals. Handles 2kW PEP. Fully assembled, uses #14 stranded copperweld or stainless steel. 110' long, 7 lbs.

**AC-1.8-30** Copperweld wire ..... **$209.99**
**ACS-1.8-30** Stainless steel wire..... **$344.99**

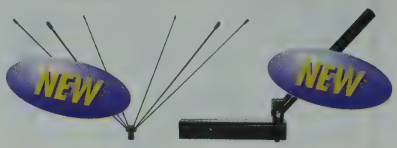
**AP-10A Window/Portable 300W PEP Antenna** A 10-40M base loaded antenna with 7-30 MHz continuous coverage, plus 2 and 6M. Tunes a low VSWR by tapping a fly lead up or down the coil and adjusting the supplied counterpoise wire. A quick and dependable antenna system when larger antennas cannot be used. Supplied with mounting bracket/clamp, counterpoise wire and 10 feet of coax..... **$89.99**

# High Sierra AntennAs

## MOTORIZED ANTENNA

**PLATINUM PACK Continuous coverage, Motor Driven HF Antenna Package** The HS-1800/PRO antenna provides continuous tuning from 3.5 to 30MHz with a typical VSWR of less than 1.5:1 across the entire tuning range. Removing the supplied 6-foot whip provides a tuning range from 6.9 to 60MHz. The "best antenna" for general mobile use because of its light weight, high performance and ability to cover the entire HF spectrum. Also a great idea for antenna-restricted QTHs, ARES/RACES and more!

Complete package, ready to install, includes the HS-1800/PRO *(right)* – black powder coat finish with black stainless-steel whip, black universal mounting bracket, quick-disconnect manual control box, RF filter assembly and installation kit (20 feet of control cable, wire ties, (2) PL-259's, 3 feet of ground strap and connector sealing material)..... **$495**




**HS-120 Capacity Hat** *(left)* Six stainless steel rods with aluminum tips inserted into a brass hub. Hat diameter is 1.5 feet. Installed on the HS-1800 it's roughly equal to adding 6 more feet of whip.. **$50**

**HS-202CL** *(right)* 2" x 2" receiver "lay back" adapter for the universal mounting bracket.. **$100**

**HS-214CL** *(right)* 1.25" x 1.25" receiver "lay back" adapter for the universal mounting bracket.. **$100**

**PROSTAR® 1000 VHF/UHF/FM Antennas** Features die-cut impedance correlator that allows close spacing of antenna elements. Manufactured from high tensile aluminum for a strong, compact antenna that will better withstand strong winds and ice loading. Protected with polymer finish.

**PR-7010 Metropolitan** 22 active elements (9 VHF, 13 UHF) • 66.5" boom..... **$39.99**
**PR-7032 Far Suburban** 33 active elements (13 VHF, 20 UHF) • 103.25" boom ..... **$64.99**
**PR-7042 Fringe** *(top)* 43 active elements (17 VHF, 26 UHF) • 149.75" boom..... **$99.99**

## VHF MARINE ANTENNAS

**4187 Ratchet Mount** *(above)* Stainless steel. 4-way ratchet design with handle for deck or bulkhead mounting. Standard 1"–14 male threads..... **$36.99**

**396-1 Center-fed 1/2 Wave Coaxial Sleeve Antenna** Basic 3dB antenna designed to reduce signal fading when working in rough seas. Widely used by the Coast Guard. 5MHz bandwidth, 3dB gain, 50W • White Shakespeare fiberglass • Brass and copper elements • Deluxe chrome-plated brass ferrule • One section • 5 ft. length, 15' RG-58 cable with PL-259. Use 4187 ratchet mount..... **$59.99**

**420 Skipper™ Center-fed 1/2 Wave Coaxial Sleeve Antenna** Economical, and a good basic 3dB antenna for steady, day-to-day cruising in calm to moderate seas. Includes a polycarbonate lift/lay deck mount, leveling plate and hardware. 5MHz bandwidth, 3dB gain, 50W • White Shakespeare fiberglass • Brass and copper elements • Polycarbonate ferrule • One section • 5 ft. length, 15' RG-58 cable with PL-259..... **$59.99**

**5101 Centennial™ End-fed Antenna with Matching Stub** High-end features in an 8' antenna with a brass element and a smooth, high gloss, polyurethane finish that won't turn yellow in the sun. 5MHz bandwidth, 6dB gain, 50W • One section • Brass and copper elements • Chrome-plated brass ferrule with standard 1" x 14 thread • 8 ft. length • Includes 15 ft. RG-58 cable and a PL-259 coaxial connector. Use with 4187 ratchet mount..... **$49.99**

**5206-C End-fed Antenna with Matching Stub** Economical, lightweight and self-supporting antenna for good communications where range is not the predominant factor. 3MHz bandwidth, 6dB gain, 50W • White Shakespeare fiberglass • Chrome-plated brass ferrule • One section • DC grounded • 8' length, 15' RG-58 cable with PL-259. Use with 4187 ratchet mount..... **$39.99**

**5202 Collinear-phased 5/8 Wave Elements** A rugged, professional quality antenna featuring a heavier duty radome and tough brass and copper construction for maximum efficiency and extra range. 3MHz bandwidth, 6dB gain, 50W • White Shakespeare fiberglass • Chrome-plated brass ferrule • One section • DC grounded • 8' length, 20' RG-58 cable with PL-259. Use with 4187 ratchet mount..... **$69.99**

**Used & Demo** Equipment lists
**Updated regularly on the web.**
Check them out and order **On-line**

# ATOC Technologies

## ANTENNAS & MOUNTS

## VHF / UHF Antennas

### Glass Mounted Antennas
### Dual Band and VHF

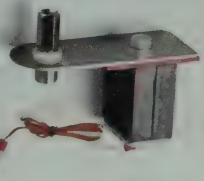
Each glass mount antenna includes instructions and mounting package. Replacement whips, base and remount kits are available. (NOTES: Some newer automobiles are equipped with "passivated glass" which does not permit on-glass antennas to work properly). Please check your owner's manual or your automobile dealer.

**ATA270 2m / 440 MHz Antenna**
Gain2.6 dB at 2m and 4.0 dB at 440 MHz over 1/4 wave. Max power 50 Watts. 14' RG-58 cable with PL-259.

**ATA144 2m Antenna**
Gain2.5 dB at 2m over 1/4 wave. Max power 50 Watts. 14' RG-58 cable with PL-259.

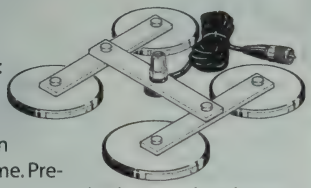
### Stake Truck Bed & Magnetic Mounts from Iron Horse

Designed for the serious amateur on-the-go, these heavy-duty stainless steel mounts feature an expandable rubber base that locks mount when tightened for secure fit. Great for HF sticks and 102" stainless steel whip antennas. Both fit most pickup truck brands and models



**IHSB-2**
locates the antenna on either side of the bed rail.

**IHSB-4**
locates the antenna directly over the truck bed rail.



**IH4501 & IH4501-SO**
**Quadruple Magnet Mount**
4 x 5" MuleHorse Magnetic Mount Kit features four 5" magnets properly spaced on a heavy duty aluminum frame. Pre-wired with 17' RG-58 and PL-259. Triple chrome plated.
**IH4501** accepts 3/8" x 24 thread antennas.
**IH4501-SO** accepts SO - 239 antennas.

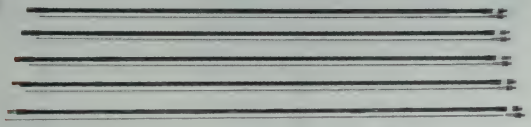
## HF Antennas

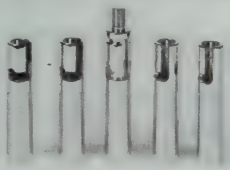
### Iron Horse Series

Enjoy great HF mobile performance with these rugged, easily tuned mono-band antennas. Made in the USA, Iron horse antennas are designed for maximum efficiency, low SWR and broad bandwidth. Each has 3/8 x 24 threads and is rated for 500 watts. Order the IHKD3S five antenna quick disconnect mounting kit to make changing bands a quick and easy operation. Just push, turn, and go!

| MODEL | DESCRIPTION | BANDWIDTH (KHz) |
|---|---|---|
| IHF75 | 75 m HF Stick | 36 |
| IHF40 | 40 m HF Stick | 60 |
| IHF30 | 30 m HF Stick | 50 |
| IHF20 | 20 m HF Stick | 150 |
| IHF17 | 17 m HF Stick | 175 |
| IHF15 | 15 m HF Stick | 200 |
| IHF12 | 12 m HF Stick | 300 |
| IHF10 | 10 m HF Stick | 500 |
| IHF6 | 6 m HF Stick | 1000 |

**Model IHF5S** is a set of five HF antennas all in one vinyl bag. The set includes 10 - 15 - 20 - 40 - 75 m antennas.

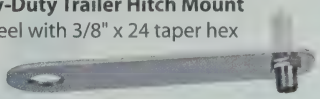




**Model IHKD3S**
is a five pack quick disconnect mount kit.

**Model AN38**
is an adaptor for NMO to a 3/8" x 24 thread antenna.

**IHTH-1 Heavy-Duty Trailer Hitch Mount**
All stainless steel with 3/8" x 24 taper hex w/ chrome-plated brass SO239 connector.



# pro·am® ANTENNAS & ACCESSORIES

## 160-6 Meters Mobile

### PHF Series Antennas

Single band whips consisting of a black fiberglass lower section with integrated coil and an adjustable and removable stainless steel whip, except for the PHF-160. These time-proven HF antennas are especially designed for maximum efficiency, low VSWR and broad bandwidth. They are power rated for 250 Watts P.E.P. and built to withstand considerable use. Standard 3/8" x 24 thread base. Assembled length on all models is 96 in. (the PHF-6 is 58 in.).

The model **DAK** Dual Adapter Mount ($13.99) accepts two antennas to make up a single band vertical or horizontal dipole which is perfect for limited space or portable opration..

| Model | Band | Bandwidth | Price |
|---|---|---|---|
| **PHF-160** | 160M | 12 kHz | **$89.99** |
| **PHF-75** | 75M | 36 kHz | **$29.99** |
| **PHF-40** | 40M | 60 kHz | **$23.99** |
| **PHF-30** | 30M | 100 kHz | **$23.99** |
| **PHF-20** | 20M | 150 kHz | **$23.99** |
| **PHF-17** | 17M | 175 kHz | **$23.99** |
| **PHF-15** | 15M | 200 kHz | **$23.99** |
| **PHF-12** | 12M | 300 kHz | **$23.99** |
| **PHF-10** | 10M | 500 kHz | **$23.99** |
| **PHF-6** | 6M | 1000 kHz | **$23.99** |

## Thru Glass 2 Meter

**GM-144 $29.99**

Mounts on windshield and operates thru-the-glass to a tuning unit mounted on the inside. Features a 27-1/2 in. copper plated whip with black finish, 14 ft. of RG-58 coax and PL-259 connector. Gain is 2.5 dB over a 1/4 wave. VSWR is 1.5:1 through the band. Rated for 50W. Tunable.

*Some autos have "passivated glass" which dows not permit antennas to work properly. Check your manual or dealer.*

GM-144

## Thru Glass 2M/70CM

**GM-270 $59.99**

Dual Band 2M/70cm thru-the glass antenna featuring a 26-1/2 in. copper plated whip with black finish, 14 ft. of RG-58 coax and PL-259 connector. Gain is 2.6 dB over a 1/4 wave at 2m and 4.0 dB over 1/4 wave at 70 cm. VSWR is <2:1 through the bands. Rated for 50W. Tunable.

GM-270

**TGS $39.99**

On-glass 30-1200 MHz receive antenna

**MM-270B $19.99**

Dual Band 2M/70cm MICRO-MAG™ with a 1-1/8 in. black ABS rare earth magnetic base and stainless steel 20 in. whip. A 2M 1/4-wave and 70 cm 5/8-wave with unity gain and 1.5:1 VSWR throughout the bands. Rated for 50W on 2m and 25W on 70 cm. Has 9 ft. of RG-174 cable to a BNC connector.

MM-270B

## Magnet Mount Antennas

**VAA-002B $23.99**

2 meter 1/4 wave antenna with a 3-1/4 in. magnetic base. 19 in. 17-7ph stainless steel whip and 12 ft. of cable with PL-259 connector. Can also be trimmed for 220 or 450 MHz operation. Black finish.

**VAA-002BBN $27.99**

Same, but with BNC antenna connector.

VAA-002B / VAA-002BBN

PAS

**PAS $19.99**

Surface Motorola mount with 17 ft. of RG58 cable with PL-259 connector. Installs in 3/4" hole in roof, fender or cowl mount.

PASMO

**PAS38** Same as PAS but with PL-259 mount **$9.99**

**PASMO $7.99**

**PASMO** Mount only, less cable and connector

## Mounts

**105AD $6.99**

Mount Assembly with chrome-plated brass hex and nickel-plated SO-239. For Plug to plug connections.

**105HD $3.99**

Chrome Mount Assembly that mounts by bolting through a 1/2 in. hole. Chrome-plated brass

**103S $24.99**

Quick Disconnect mounting kit. One 3/8" x 24 base and five twist-lock connectors

**120 $7.99**

Radio Hump Mount. Saw-tooth design grips without damage to carpet. Adustable, Steel, baked black.

**100ADT $9.99**

Extra heavy duty aluminum 3-way mirror mount. 3/8" x 24 mount and SO-239 connection.

**100ADN $10.99**

Extra heavy-duty aluminum double groove mirror moount with 3/8" x 24 mount and SO-239 connection.

**SS-100MOT $23.99**

Stainless steel 3-way mirror mount with Motorola-style mount. Includeds 10 ft. of cable to a PL-259

**DAK $13.99**

Dual adapter mount with one lug and one SO-239. Accepts two PHF or other 3/8"x 24 mount antennas for vertical and horizontal dipole configuration.

## 2 Meters

**PHB-144 $29.99**

5/8 wave, 3dB gain over 1/4 wave, covers 144-174 MHz. Tuned, low loss coil with 1-1/8" threads to match Pro•am and 3/4 in. hole Motorola TAD/TAE mounts.Rated 100W, whip length 49 in.

**CX-144 $17.99**

5/8 wave, 3 dB gain over 1/4 wave. Heavy duty matching coil with standard 3/8" x 24 chrome-plated base. Rated at 100W, length 49 in.

PHB-144

CX-144

## Dual Band 2M & 70CM +

**MO144-440 $21.99**

A dual band antenna to over it all! 19" Covers 2M/70cm plus works great for all band scanners 25 MHz-1.3 GHz. Stainless steel whip. Mount with 1-1/8" threads match 3/4" hole pro•am and Motorola TAD/TAE mounts. SWR less than 2:1. Gain: unity on 2m and 2.1dB over a 1/4 wave on 70 cm.

MO144-440

## Multi-Band Mobile

**AB-5 $119.99**

Consists of a 4 ft. aluminum mast and tri-top adapter with resonators included for 10, 15, 20, 40 and 75 meters. Also operates on 6 meters. Mast fits any standard 3/8 x 24 thread mobile mount. The 10, 15, and 20 meter resonators work without extra tuning. The interchangeable 40 and 75 meter resonators are easily tuned with their tunable tips.

AB5

## Utility

**PAQA $8.99**

A unity gain stainless steel UHF/VHF whip that covers 136 to 866 MHz with cutting required. Nickel/chrome plated brass base with 1-1/8" threads to match Pro•am and 3/4" hole Motorola TAD/TAE mounts. Includes cutting chart.

PAQA

**PAT-2 $19.99**

A chrome low profile trunk-lip mount including 17 ft. of RG-58 cable with PL-250 connector. Model **PAT-2B** is BLACK.

**PAM $24.99**

A 3-3/4 in. diameter low profile magnet Motorola mount pre-wired with 12 ft. of RG-58 cable to a PL-259 connector. Model **PAMB** is BLACK.

**301 $16.99**

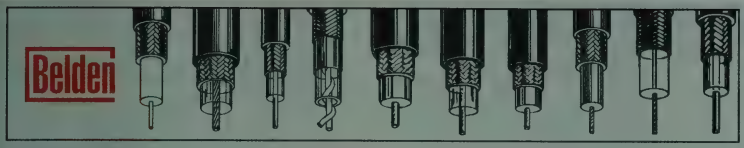
4 in. dia. with 3/8" x 24 mount.

**401 $19.99**

5 in. dia. with 3/8" x 24 mount.

**MM-3401 $59.99**

Maxi-Magnet mount kit features three 5 in. magnets in chrome cups spaced on a heavy duty aluminum frame. Prewired to a with 17 ft. of RG-58 cable to a PL-259. Accepts standard 3/8"x 24 mount antennas. Model **MM-3401B** has BLACK magnet cups.




## COAXIAL CABLE

See Belden in the Price Guide

| Model | Type | Dia. (in.) | Center conductor | Insulation type | Shield coverage | Jacket type | Imp. (Ω) | Vel. factor | Loss/100' 100 MHz |
|---|---|---|---|---|---|---|---|---|---|
| 8216 | RG-174 Sub-miniature | .11 | 26 AWG bare copper coat steel | Solid polyethylene | 90% tinned copper braid | Black PVC | 50Ω | 66% | 8.4 dB |
| 8219 | RG-58A/U | .195 | 20 AWG stranded bare copper | Foam polyethylene | 96% tinned copper braid | Black PVC | 53.5Ω | 73% | 4.5 dB |
| 8240 | RG-58/U | .195 | 20 AWG solid bare copper | Solid polyethylene | 95% tinned copper braid | Black PVC | 51.5Ω | 66% | 3.8 dB |
| 8259 | RG-58A/U | .193 | 20 AWG stranded tinned copper | Solid polyethylene | 95% tinned copper braid | Black PVC | 50Ω | 66% | 5.4 dB |
| 8262 | RG-58C/U non-contaminating | .195 | 20 AWG stranded tinned copper | Solid polyethylene | 95% tinned copper braid | Black, non-contaminating PVC | 50Ω | 66% | 5.4 dB |
| 9258 | RG-8X Mini-8 | .242 | 16 AWG stranded bare copper | Foam polyethylene | 95% bare copper braid | Black PVC | 50 | 82% | 3.1 dB |
| 8214 | RG-8/U | .403 | 11 AWG stranded bare copper | Foam polyethylene | 97% bare copper braid | Black PVC | 50Ω | 78% | 1.7 dB |
| 8237 | RG-8/U | .405 | 13 AWG stranded bare copper | Solid polyethylene | 97% bare copper braid | Black PVC | 52Ω | 66% | 1.9 dB |
| 8267 | RG-213/U non-contaminating | .405 | 13 AWG stranded bare copper | Solid polyethylene | 97% bare copper braid | Black, non-containating PCV | 50Ω | 66% | 2.1 dB |
| 9913 | Low loss semi-flexible RG-8/U | .405 | 10 AWG solid bare copper | Semi-solid polyethylene | 100% bonded foil plus 90% tinned copper braid | Black PVC | 50Ω | 84% | 1.3 dB |
| 9913F7 | Low loss flexible RG-8/U | .405 | 10 AWG stranded bare copper | Gas-injected foam polyetnylene | 100% bonded foil plus 90% tinned copper braid | Black Belflex® | 50Ω | 84% | 1.5 dB |
| 8241 | RG-59/U | .242 | 23 AWG solid bare copper | Solid polyethylene | 95% bare copper braid | Black polyethylene | 75Ω | 66% | 3.4 dB |
| 8213 | RG-11/U | .405 | AWG 14 solid bare copper | Gas-injected foam polyethylene | 97% bare copper braid | Black polyethylene | 75Ω | 84% | 1.3 dB |
| 8238 | RG-11/U | .405 | 18 AWG stranded tinned copper. | Semi-foam polyethylene | 97% bare copper braid | Black PVC | 75Ω | 66% | 2.0 dB |

## ROTOR CABLE

**8448 Standard duty, 8 wire.** Up to 100 ft. runs. Six #22 and two #18 AWG tinned copper conductors. PVC insulation and PVC jacket.

**9405 Heavy duty, 8 wire.** Over 100 ft. runs. Six #18 and two #16 AWG tinned copper conductors. PVC insulation and PVC jacket.

**8484 Standard duty, 4 wire.** Four #20 AWG tinned copper conductors. PVC insulation and PVC jacket.

See Belden in the Price Guide

## PREASSEMBLED COAXIAL HOOK-UP CABLES (INSTALLED)

**9354** 50' RG-8/U low-loss foam, PL-259s.. **$49.99**
**9355** 75' RG-8/U low-loss foam, PL-259s.... **69.99**
**9356** 100' RG-8/U low-loss foam, PL-259s.. **79.99**

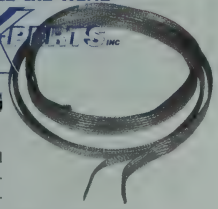
## ANTENNA & GROUND WIRE

**8000** #14 AWG (7x22) stranded bare copper-covered steel antenna wire.
**8018** #8 AWG (solid) soft annealed aluminum ground wire – multiples of 50 ft.

*Connecting you to the World*

CABLE XPERTS INC

## FLAT GROUNDING BRAID



Flat, flexible, and tinned for easy soldering. 1" size primarily used for grounding tower legs to ground rods or central point in a shack. From the central point, use 1/2" size to all equipment separately for best protection.

**2332** 1/2", 10 gauge, rated at 53A..... per ft. **59¢**
**2332 100** 100 foot roll of above..... **$52.99**
**235** 1", 7 gauge, rated at 85 amps..... per ft. **99¢**
**235 100** 100 foot roll of above ..... **$92.99**

COAX-SEAL®
"The Original Connector Sealant!"

**UNV 104 Hand Moldable Plastic for Antenna Component Protection** The quick and effective way to seal and protect all types of coaxial fittings, baluns, antenna parts and connectors. Simply wrap it on like regular tape, then mold it to any shape. It adheres tightly to metal, vinyl and polyvinyl coax outer jackets. Stays flexible and sealed at any temperature for years to resist moisture penetration and deterioration. Its permanent flexibility makes it possible to remove and re-install fittings, then re-seal just by reforming the same material. Non toxic and non-contaminating roll, 1/2"w x 60"... **$3.99**

MFJ ENTERPRISES, INC.

**341S** (SO-239)/**341M** (NMO) **Permanent Mobile Hard Mounts** Quality antenna mounts with 14' of RG-58A/U coaxial cable and attached PL-259 connector. Easily snakes around any vehicle to the obtain the best operating position. Perfect for MFJ *RuffRider™* or other brands of mobile VHF/UHF antennas..... ea. **$19.99**

WINEGARD®
Clearly the World's Best®

**TV-2900 Weatherproof Transformer** 82 channel, matching transformer for indoor or outdoor use. Adapts 75Ω coaxial cable with F-connector to terminals of a 300Ω TV antenna, TV set or coupler. Includes F-connector and boot..... **$2.99**

**RG-6 75Ω TV Coaxial Cable** with cellular poly dielectric, #20 copperweld center conductor, 100% aluminum foil shield and 40% aluminum braid shield provides low-loss, good conductivity, flexibility and tensile strength. Weather-proof F-connectors installed.

**CX-0625** 25 ft. length..... **$10.99**
**CX-0650** 50 ft. length ..... **15.99**
**CX-0675** 75 ft. length ..... **19.99**
**CX-6100** 100 ft. length ..... **24.99**

synthetic textiles,inc.

**Black Dacron® Polyester Rope** Constructed of strong double braid Dacron® polyester. It's black for UV protection and has excellent resistance to weather, mildew and abrasion. The rope ties and cuts easily and ends seal effectively with the application of a small flame or hot tool.

After a small initial "set" due to tightening of the braid, it has virtually no long term stretch, making it ideal for supporting dipoles, long wires, etc. Also, great for non-resonant guying of masts or towers. When used as an overhead boom support rope for beam antennas, it eliminates a conductive wire from the RF field, which is especially important in VHF/UHF applications.

**100'** 100 ft., 260+ lbs., 3/32" ..... **$7.99**
**100' 3/16** 100 ft., 770+ lbs., 3/16" ..... **16.99**
**100' 5/16** 100 ft., 1790+ lbs., 5/16" ..... **22.99**
**350'** 350 ft., 770+ lbs., 3/16" ..... **44.99**

See Price Guide for Cable X-perts pricing.

## CASTLE RIDGE PRODUCTS, INC.

**COPPERWELD® Antenna Wire** Forge-welding makes the two metals inseparable! Solid bare copper-over-steel wire – the best for antennas. Very strong, the steel core has very little stretch and long service life. The copper covering provides low RF resistance and solders easily. 12, 14 or 18 gauge.

**AN-122** 100 ft. #12 ..... **$29.99**
**AN-123** 150 ft. #12 ..... **39.99**
**AN-124** 250 ft. #12 ..... **59.99**
**AN-126** 500 ft. #12 ..... **99.99**
**AN-128** 1000 ft. #12 ..... **179.99**
**AN-142** 100 ft. #14 ..... **24.99**
**AN-143** 150 ft. #14 ..... **29.99**
**AN-144** 250 ft. #14 ..... **39.99**
**AN-146** 500 ft. #14 ..... **69.99**
**AN-148** 1000 ft. #14 ..... **119.99**
**AN-181** 250 ft. #18 ..... **17.99**
**AN-182** 500 ft. #18 ..... **29.99**

### ROTARY COAX CABLE STRIPPERS

For quick, clean prep of coaxial cable without damage. Insert coax, turn clockwise 4 or 5 times.

**24-7735P** for RG-58, RG-59, RG-62 ..... **$21.99**
**24-7736P** for RG-6, RG-59, 8281 ..... **21.99**
**24-7739P** for RG-8, RG-11, RG-213 ..... **28.99**

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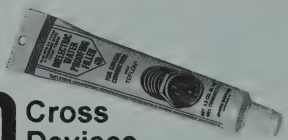


## Cross Devices

**STUF** Dielectric Water-proof Connector Filler Seals out moisture. High purity macroscopic foam that dielectrically simulates the coaxial cable core. Fill coax connectors and tighten. The filler material hydraulically channels into all connector voids and points of moisture entry. Non-hardening, easy to remove. No silicones, or other additives to harm coax cable material ..... (tube) **$4.99**

## PENETROX™

**PENETROX® A** Recommended for use on aluminum-to-aluminum and aluminum-to-copper connectors, on bare conductors, and bus bars. Good for all voltages. Assures a high conductivity joint by sealing out air and moisture to prevent corrosion and reformation of oxide film. Apply to mating pieces of antenna components, tubing, etc. during assembly to provide a non-corrosive, low resistance and air tight seal. Makes later disassembly a breeze..... (4oz bottle) **$12.99**

## Van Gorden Engineering

### BALUNS & INSULATORS

**Hi-Q 1:1** or **Hi-Q 4:1** Baluns For dipoles, yagis, inverted vees and doublets. Provides 1:1 or 4:1 impedance ratio for matching unbalanced coaxial cable to balanced antennas. Covers 3–40MHz with a 1.5KW rating. Reduces feedline radiation for more power into antenna, and reduced TVI/BCI problems. Built-in DC ground reduces static noise and provides some lightning protecton. Convenient SO-239 connector and center support eye hook; weatherproof ea. **$14.99**

**ANTENNA CENTE** Hi-Q Antenna Center Insulator Insulator only, no balun. Replaces egg-type center insulator. Small, rugged, lightweight, weatherproof, SO-239 connector, center supporting eye hook ..... **$6.99**

**ANTENNA END IN** End insulators . pair **$4.99**
**DOG BONE** Antenna insulators ..... each **99¢**

### LADDER LINE

**450 OHM 100** 18 ga. 100' insulated ..... **$14.99**
**450 OHM 14 100** 14 ga. 100' insulated.. **29.99**
**450 OHM 1000** 18 ga. 1000' insulated . **109.99**
**450 OHM 14 1000** 14 ga. 1000' insul.. **229.99**

### WHITE NYLON ROPE

**NR-100** 100' roll, antenna guy rope ..... **$4.99**
**NR-1000** 1000' roll, antenna guy rope ..... **44.99**

### N CONNECTOR

**N CONNECTOR** Male connector for Belden 9913 and 8214 coax ..... **$4.99**

### PREASSEMBLED COAXIAL HOOK-UPS

**8X-1.5ST** 1.5' RG-8X, silver-tef. PL-259s.. **$7.99**
**8X-3ST** 3' RG-8X w/silver-teflon PL-259s.... **8.99**
**8X-6ST** 6' RG-8X w/silver-teflon PL-259s . **10.99**
**8X-12ST** 12' RG-8X, silver-teflon PL-259s **11.99**
**8X-25ST** 25' RG-8X, silver-teflon PL-259s **15.99**
**8X-50ST** 50' RG-8X, silver-teflon PL-259s **24.99**
**8X-75ST** 75' RG-8X, silver-teflon PL-259s **31.99**
**8X-100ST** 100' RG-8X, silver-tef. PL-259s **37.99**
**213-25ST** 25' RG-213, silver-tef. PL-259s. **25.99**
**213-50ST** 50' RG-213, silver-tef. PL-259s. **38.99**
**213-75ST** 75' RG-213, silver-tef. PL-259s. **54.99**
**213-100ST** 100' RG-213, sil.-tef. PL-259.. **72.99**

# UNADILLA

## W2AU FERRITE BALUNS

These baluns replaces center insulator and provide a smooth transition from unbalanced coaxial transmission lines to balanced antennas; dipoles, quads and yagis. Produces proper current distribution resulting in reduced feedline radiation for maximum power transfer, gain and reduced TVI/BCI. DC grounded for lighting protection, center eye hook for support. Usable from 1.8-40MHz, 2KW PEP, So-239 connector..

**W2AU 1:1** 1.1, 1.8-40MHz ferrite ..... **$24.99**
**W2AU 4:1** 1.1, 1.8-40MHz ferrite ..... **24.99**
**W2AU BEAM** 1.1, Beam balun ..... **24.99**

## W2DU CHOKE BALUNS

High efficiency, *transformerless* 1:1 baluns. The HF model is the only one available that works on 160 meters! They all handle a VSWR up to 5:1 at the legal power limit, allowing use with antenna tuners. The VHF model eliminates the usual rod and tube hardware balun assembly normally used at those frequencies.

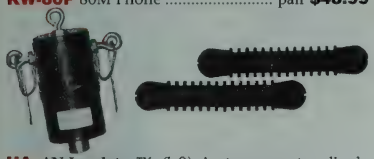
**W2DU-HF** 1:1, 1.8-30MHz choke..... **$26.99**
**W2DU-VHF** 1:1, 30-250MHz choke..... **26.99**
**W2DU BEAM** 1:1, 40-10m choke..... **26.99**

## REYCO ANTENNA TRAPS

Add traps to your dipole for multiband operation on two to seven bands. Add the 40M pair (KW-40) and get "perfect dipole" performance on 40 and 80M. Add five pair and work 10, 15, 20, 40, 80 and 160M with low SWR.

**Selecting traps:** List the bands you want to cover, listing the Highest Frequency band first. You will need a pair of traps for each band except the one with the Lowest Frequency.

**KW-10** 10M..... pair **$41.99**
**KW-12** 12M..... pair **$41.99**
**KW-15** 15M..... pair **$41.99**
**KW-17** 17M..... pair **$41.99**
**KW-20** 20M..... pair **$41.99**
**KW-30** 30M..... pair **$42.99**
**KW-40** 40M..... pair **$42.99**
**KW-80CW** 80M CW ..... pair **$48.99**
**KW-80F** 80M Phone ..... pair **$48.99**



**HA AN-Insulator™** *(left)* A strong center dipole insulator with built-in lightning protection. SO-239 connector, 3.5" long x 1.75" dia ..... **$9.99**
**HE END-Insulator™** *(right)* A shatter-proof antenna end insulator. Tough, includes voltage path extenders, positive wire track. Low loss, lightweight and long leakage path. 5.5" long x 1"dia. .... pair **$6.99**

We accept I.M.P.A.C.® Government Credit Cards

# MFJ ENTERPRISES, INC.

## ANTENNA TUNERS

**902 Tiny Travel Tuner** Only 4.5"w x 2.25"h x 3"d, but rated for 150W. Tunes nearly any coax-fed or random length wire antenna for 80-10M. Perfect for "take along" rigs like IC-706MKII-G, FT-100D, TS-50S, QRP rigs and others with built-in SWR meter ..... **$69.99**

**922 VHF/UHF Dual Band Antenna Tuner** Great for HTs, mobiles or amps up to 150W. Using the included tool, adjust your antenna system for a low SWR on VHF, 136–175MHz and UHF, 420–460MHz. Meter reads both SWR and power in 60/150W ranges. 4" x 2" x 1.25"- carry it in your car, while camping, etc ..... **$79.99**

**945E Mobile Tuner** Covers 1.8–30MHz plus 6M, and rated at 300W PEP. Matches coaxial cable only. Extends mobile antenna bandwidth and eliminates having to stop and adjust the whip length when making frequency changes. Lighted cross-needle SWR bridge and power meter with 50/300 and 5/30W ranges. 8"w x 2"h x 6"d..... **$99.99**

**941E Versa Tuner II** Covers 1.8–30MHz and rated at 300W PEP. *Matches everything!* – coaxial fed dipoles, vees, whips, verticals, beams, random wires and balanced lines, has a built-in 4:1 balun. Lighted cross-needle SWR/power meter with 300/50W and 30/5W ranges. Convenient 8-position antenna selector for 2 coax lines, random wire or balanced line or an external dummy load. 10.625"w x 2.875"h x 7"d ..... **$109.99**

**934 Antenna Tuner/Artificial Ground** Makes a random wire an effective antenna. Combines the best features of MFJ's 941E and 931 into one unit. A full-featured 1.8–30MHz, 300W antenna tuner with cross-needle meter and ground matching knob that lets you switch in inductance to bring an attached radom length wire to a low impedance current point, forming an artificial ground. 10.625"w x 3.5"h x 7"d..... **$169.99**

**948** All the features of the 941E without the dummy load. Has larger lighted peak reading cross-needle SWR/power meter..... **$119.99**

**949E Deluxe Versa Tuner II** Same power, tuning and switching capability as the 941E with a larger, lighted peak or average reading cross-needle SWR/wattmeter. *PreTune™* allows off-air tune-up into a built-in 50Ω dummy load. 10.625"w x 2.875"h x 7"d. ..... **$139.99**

**969 Deluxe Versa Tuner II** Covers 6–160M and rated at 300W. Features a roller inductor coil with a spinner knob and 3-digit turns counter. Lighted peak/average reading cross-needle SWR/wattmeter with 30/300W ranges. Tunes coaxial cable, random wire or balanced feedline, has a built-in 4:1 balun. QRM-Free *PreTune™* allows off-air tune-up into a built-in 50Ω 300W dummy load. Convenient 8-position antenna selector switch. 10.5"w x 3.875"h x 9.5"d. .... **$189.99**

**962D Versa Tuner III** Covers 1.8–30MHz and rated at 1.5KW PEP. Matches coaxial fed antennas, random or balanced line. Has a built-in 4:1 balun. Lighted peak/average cross-needle SWR/wattmeter with 200/2000W ranges. 6-position selector for 2 coax lines (direct or thru), random and balanced lines. 10.5"w x 3.875"h x 15"d ..... **$249.99**

**986 Differential-T Tuner™** Covers 1.8–30MHz , rated at 3KW PEP. Uses a broadband T-network with roller inductor and differential capacitor. Tunes most antennas using only two knobs. Lighted peak or average reading cross-needle SWR/wattmeter with 200/50W and 2000/500W ranges. Inductor spinner knob, 3-digit turns counter, 6-position antenna selector, external dummy load switch, 4:1 balun. 10.75"w x 4.5"h x 15"d ..... **$299.99**

**989C Versa Tuner V** Covers 1.8–30MHz, rated at 1.5KW PEP with heavy-duty components. Matches nearly every type of antenna. Roller inductor with spinner knob and 3-digit turns counter. Lighted peak/average reading cross-needle SWR/wattmeter with 200/2000W ranges. Built-in 50Ω 300W dummy load, heavy-duty 4:1 balun and 6-position antenna selector switch. 10.75"w x 4.5"h x 15"d ..... **$319.99**

**Ladder-Loc®** Center Insulator & Support Provides convenient attachment of 450Ω ladderline to various dipoles. Minimizes feedline flexing at the antenna feedpoint and ensures a long lasting, trouble-free installation. A top attachment point is provided for attaching a center support rope. UV stabilized for long life ..... **$12.99**

**Look For This NEW & Check Out AES' Latest Additions.**

# VECTRONICS

## ANTENNA TUNERS

**VC-300M Mobile Tuner** Compact and lightweight for base or mobile use. Tunes verticals, dipoles, inverted Vs, beams and mobile whips fed by coaxial cable. Covers 1.8–30MHz at 300W continuous power. The dual-movement cross-needle meter simultaneously monitors RF power output and SWR. 7.25"w x 3.5"h x 8.75"d, 2.5 lbs **$99.99**

**VC-300DLP Antenna Tuner** A quality, economical tuner. Covers 1.8–30MHz at 300W continuous power capability from 3.5–30MHz and 150W on 1.8 MHz. Built-in dummy load, dual-movement cross-needle peak or average reading meter. Compatible with most antennas – coax-fed, balanced or single wire. Built-in 4:1 balun and 6-position antenna switch. 10.25"w x 9.5"d x 3.5"h, 3.5 lbs.. **$149.99**

**VC-300D Antenna Tuner** Same functions and specifications as the VC-300DLP above, but has the additional capability to show a peak power indication by using an instantaneous responding digital bargraph meter display. A level and delay control has been added to calibrate the display to the meter, and to vary the delay response..... **$179.99**

**HFT-1500 Antenna Tuner** Rated for 1500W from 1.8–30MHz; 1000W (2KW PEP) on 160 and 10M. Features a cranked continuous roller inductor with a numerical turns counter and vernier tuning on the antenna and input capacitors. The dual-movement cross-needle meter shows average forward and reverse power and SWR while a 21-segment bargraph indicates the peak power. A true RF directional coupler sensor is used for the wattmeter circuitry. Includes a built-in 4:1 balun for balanced antenna systems and six-position antenna selector switch. 5.5"h x 12.5"w x 12"d, 10 lbs..... **$399.99**

We accept I.M.P.A.C.® Government Credit Cards

# LDG ELECTRONICS

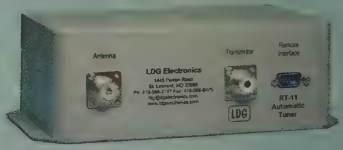
**AT-1000 High Power Automatic Antenna Tuner** 1000 Watt Microprocessor-controlled "L" network works by automatically analyzing SWR and adjusting discrete components at speeds faster than can be accomplished manually. Dual cross reading meter simultaneously monitors forward/reverse power and SWR. • Tuning time: 0.1-6 seconds, 3.0 average • Requires 11 to 15VDC @ 1A • 1.8-54MHz, tunes 6 to 800Ω (10:1 SWR) • 20-1000W SSB, 750W CW, 500W digital (6M limit 100W) • For dipoles, verticals, vees, beams and coax-fed antennas • 13" x 9" x 3", 6 lbs ..... **$549.99**

**Z-100 Automatic Antenna Tuner** Power consumption ZERO when not tuning, perfect for portable operation. Uses LDG's high efficiency, microprocessor-controlled, switched "L" network to work with dipoles, verticals, inverted vees and others. Use external balun for long wires or ladder line-feds. Optional interfaces for DC power and control from most Icom, Alinco and Kenwood radios. • Latching relays hold tune • 0.1-125W • LEDs for SWR and tuning state • Tuning time: 0.5-6 seconds, 3 average • Requires 7-16VDC at 300mA • 1.8-54MHz, tunes 6-800Ω • 5.5" x 5.25" x 1.5", 14 oz..... **$149.99**

**AT-11MP Desktop Automatic Antenna Tuner** The World's most popular Desktop Autotuner! Switched "L" network tuning for unparalled tuning ranges. Lite cross-needle meter displays forward and reflected power and SWR. Tunes most coax-fed antennas to 15:1 or less. • 5-150W continuous • 1.8 to 30MHz continuous • Optional interfaces for Icom, Alinco, Yaesu FT-100/897 and Kenwood TS-50 • Optional Balun for tuning wire antennas • Requires 11 - 18 VDC @ 15-500mA (250mA average) • 9.5" x 8.25" x 2.5", 4 lbs ..... **$219.99**

**Z-11 QRP Automatic Antenna Tuner** Perfect for QRP radios. Designed with regard to reducign size and power cunsumption. A high-efficiency, microprocessor-controlled, switched "L" network designed to work with dipoles, verticals, vees, beams or other coax-fed antennas. Latching relays allow the Z-11 to be powered off once tuned. • 1.8-30MHz • 0.1-30W continuous (60W peak) • Tunes 6 to 800Ω • Tuning time: 0.1 to 3 seconds (1.5 average) • Optional Yaesu FT-817 interface • Requires 11-18 VDC @ 10-190mA (75mA average) • 5" x 6.5" x 1.3", 15 oz..... **$169.99**

**AT-897 Automatic Antenna Tuner** Specialized bolt-on tuner for Yaesu FT-897, a direct replacement for the FC-30. Power consumption is ZERO when not tuning, perfect for battery operation. A second CAT port allows simultaneous use of computer control and tuner. Quickly tunes coax-fed antennas and lowers SWR from 10:1 to 1.5 or less. • Tuning time: 0.5-8 seconds, 4 average • Powered directly from FT-897 CAT port • Microprocessor controlled • 1.8-54MHz, tunes 6 to 800Ω • For dipoles, verticals, vees, beams and others • Optional external balun allows tuning of random length, long wire, and others • 10.5" x 3.25" x 1.5", 2 lbs..... **$199.99**




**RT-11 Remote Mounting Automatic Antenna Tuner** Best choice for mobile, marine, and remote applications. Weather resistant, ABS plastic enclosure with flanges. Latching relays hold last tuned position, even if power is removed. • 1.8-54MHz • 0.1-125W • Tuning time: 0.1 to 3 seconds, 1.5 average • Optional interfaces for Icom, Alinco, Yaesu FT-100/897 and Kenwood TS-50S • Tunes coax-fed antennas, optional balun for wire antennas • Requires 11-18VDC @ 10-200mA (75mA average) • 8.5" x 5.5" x 3", 2.5 lbs ..... **$199.99**

**RBA-1 4:1 Balun** Uses include matching twin-lead or ladder line to coax cable, and interface between long wires or end fed wires to coax cable. Coax side is a SO-239 connector. The wire side is two, 5-way binding posts. Weather resistant enclosure with gaskets on all connectors. • 1.8-30MHz • 200W • 2" x 4.5" x 1.5", >6 oz.... **$30.99**

**K-OTT Kenwood One Touch Tune** Plugs into any Kenwood that supports AT-300 tuner. Provides control signals/power for LDG tuners. Activate tuning sequence or bypass tuner from radio panel. • Microprocessor interface between radio and tuner • 6-pin Molex, DB9 connector and power jack • Requires 12VDC @ 14mA (from radio) • 6" radio and tuner connections, 8" adapter • 1.5" x 3" x .75", 1 lb..... **$59.99**

## ANTENNA TUNER

**ATR-30 True Legal Limit™ Antenna Tuner** Covers 1.8–30MHz, including MARS and WARC. Designed for sustained RF output over 1500W CW and 3000W SSB, also 160M. Uses High-Q, high-current, edge-wound, arc-free roller inductor with heavy duty 500pf capacitor in T-match network. Matches most antennas using either coax or balanced feedlines. Cross-needle, peak-reading SWR/wattmeter, 3000/300W ranges, measures peak/average forward/reflected power plus VSWR, illum. Includes 3-core choke balun, 6-position antenna switch and 6:1 vernier reduction drives, turns counter. Requires 12VDC or internal 9V. **$549.99**

## REMOTE CONTROLLED ANTENNA SWITCHES

**RCS-4** Select up to 4 different HF antennas by supplying control voltages thru the coax without the need for a separate control line. The weatherproof switch box can be tower, mast or wall mounted. Uses 3 heavy duty 10A contact relays on a fiberglass circuit board 5.25"d x 7"w x 3"h. Safe, 14VDC control. Indoor control console locates at operating position. 6"d x 6"w x 2.5"h. 120VAC. Rated 1.8–30MHz, 2KW..... **$129.99**

**RCS-8V** Independently or simultaneously select up to 5 different antennas using one coaxial feedline and 8-wire control cable. Internal wiring allows grounding or floating unused terminals as required. Rated at 5KW below 30MHz, and 1KW up to 150MHz ..... **$139.99**

**RCS-8VN** Same as RCS-8V but with N-type female connectors ..... **$149.99**

**RCS-10** Select up to eight HF antennas using one feed line and a single four conductor control line (not supplied). Long life sealed relays with 16A current rating. Up to 100MHz with low VSWR. Over 5KW below 30MHz (matched)..... **$149.99**

## Palomar Engineers

**PT-340 Tuner-Tuner** Eliminate QRM, overheated final tubes & devices by adjusting the station antenna tuner without transmitting. Installs permanently between rig and tuner. Just turn on, and listen to the noise output in a receiver, then adjust the station tuner controls for a dip in the noise (a null). Covers 1.7–30MHz. Uses 9V battery. 6"w x 5"h x 3"d ..... **$99.99**

## ICOM

**AH-2B Antenna Element** Provides 7 through 50MHz mobile operation when used with the AH-4 antenna tuner. Includes hardware for mounting to a tow bar, 8.2 ft. antenna. **$299.99**

**AH-4 Automatic Antenna Tuner** *Fully automatic* – covers 3.5MHz–54MHz with a 23' or longer wire antenna, or 7–54MHz with optional AH-2B element. It measures 6.7"w x 2.7"h x 9"d for easy installation in a variety of locations. Weather-resistant construction, using rubber gasket seals, enables operation in all conditions. Handles 120W PEP, requires only 5–15W for tuning. Designed for use with Icom HF transceivers. Just push the [TUNER] switch and the AH-4 auto adjusts to the minimum SWR in less than 2.5 seconds. Up to 45 memories store settings to provide 1-second retuning. Supplied with mounting kit, 16' control and coaxial cables, PL-259s. Requires 13.8 VDC..... **$259.99**

## DAIWA

**CS-201 2-Position Coaxial Switch** A high quality coaxial switch with excellent high frequency RF characteristics due to cavity and heavy diecast metal construction. Frequency range up to 600MHz with less than 0.12 VSWR, less than 0.2dB insertion loss and 60dB isolation between terminals. Rated at 2.5 KW PEP or 1KW CW. Auto grounding of unused terminals, SO-239 connectors ..... **$26.99**

## AMECO

**PT-3 Preamplifier** Covers 2-54MHz and useable with either a receiver or transceiver. A tunable low noise dual-gate FET circuit provides >20dB gain, low N.F. and improved spurious and image rejection. An RF sensed switch with variable delay automatically bypasses to antenna on transmit. Second receiver or antenna capability. 12V DC, or use P-12T AC adapter ($9.99). 2.5"h x 8.75"w x 6.5"d... **$124.99**

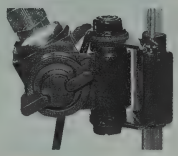
**TPA Tunable Preamp/Active Antenna** Use as a preamplifier to improve receiver gain, or as an indoor active antenna. Covers 0.22 –30MHz in 5 bands. A dual-gate FET device provides an excellent N.F. and >20 dB gain. As a preamplifier, the input matches most antennas; long wire, 300Ω and random lengths. When no external antenna is available, the preamplifier's built-in 30 in. collapsible whip gives great results. Uses 9V battery or P-9T AC adapter ($9.99). 1.5"h x 8"w x 6.5"d..... **$76.99**

## MFJ

MFJ ENTERPRISES, INC.

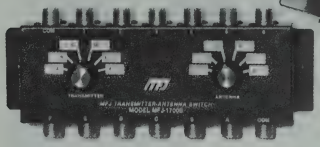
## ANTENNA MOUNTS

**310 HT Antenna Window Mount Clip** Your HT rubber duck antenna radiates poorly inside your car due to the shielding effect of the roof, doors, etc. Detach the duck from your HT and install on this handy BNC window mount clip. It holds your antenna securely on the outside of your car's window where it can radiate freely. Quick and easy to install and remove. Comes with 10' of flexible mini-coaxial cable ..... **$14.99**



**340 Mirror or Luggage Mount** For mounting VHF/UHF and medium-size HF antennas on mirror, luggage rack or spare tire carrier of truck, van, RV or SUV ..... **$34.99**

**345 Trunk/Hatchback Lip Mount** Mounts on any lip on you vehicle. An extra-wide 4-inch lip and large reinforcing tabs on each side safely distributes the load. Mounts at any angle and allows at any desired angle ..... **$34.99**



## COAXIAL SWITCHES

**1700B Antenna and Transceiver Switch** Select up to 6 antennas and 6 rigs in any combination. Leave in line to operate with any combination 50 or 75Ω. Handles 2kW PEP or 1kW CW from 1.8–30 MHz. Unused positions are auto grounded for lightning protection. 10"w x 3"h x 1.5"d ..... **$79.99**

**1701 Antenna Switch** Six positions, for 50-75Ω systems. Rated for 2KW PEP or 1KW CW from 1.8–30MHz. Unused positions are grounded for lightning protection. 10"w x 3"h x 1.5"d... **$49.99**

**1702C Antenna Switch** 2 positions + center ground. 50Ω, rated to 500MHz with <0.2dB loss, 2.5kW PEP or 1kW CW. >60dB isolation @ 300MHz or >50dB @ 450MHz. Unused terminal auto grounds for lightning protection..... **$24.99**

**1702CN** Lowest loss on UHF. Uses Type N connectors which are good up to 1.1GHz ..... **$34.99**

**1704 Antenna Switch** 4 positions + center ground. 50Ω, rated to 500MHz with <0.2dB loss, 2.5kW PEP, 1kW CW, >50 dB isolation @ 500MHz. Includes replaceable lightning protection..... **$64.99**

**1704N** with Type N's..... **$74.99**

## DUPLEXERS

| Type | SO239 PL259/PL259 | SO239 PL259/Nmale | SO239 SO239/SO239 | SO239 PL259/PL259 | SO239 PL259/Nmale | Nfemale PL259/Nmale | PL259 SO239/SO239 |
|---|---|---|---|---|---|---|---|
| Leads | No | No | No | Yes | Yes | No | Yes |
| 2m/440 | Comet CF4160K Diamond MX72D MFJ 916 | Comet CF4160I | Comet CF4160J | Comet CF416A Comet CF530 Diamond MX72H | Comet CF416B Diamond MX72N Yaesu AD3 | Comet CF416C Comet CF416W | |
| 2m/220 | Diamond MX214D | | | Comet CF142 | | | |
| HF/6 to 440 | | | | Comet CF360A | | | Comet CF360B |
| HF to 6/2m | | | | Comet CF706A Diamond MX62M | | | |

## TRIPLEXERS

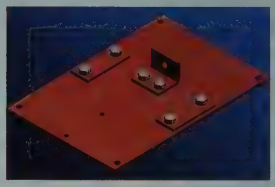
| Type | Leads | HF/6/2/440/1200 | HF/6/2/440 | 2/220/440 |
|---|---|---|---|---|
| Nfemale PL259/PL259/Nmale | No | Comet CFX4310C | | |
| SO239 PL259/PL259/PL259 | Yes | Diamond MX2000 | Comet CFX514 | Comet CFX324A Diamond MX324 |
| SO239 PL259/PL259/PL259 | No | | Comet CFX5140 | Comet CFX324B Diamond MX324D |
| Nfemale PL259/PL259/Nmale | Yes | Diamond MX3000 | | |
| SO239 PL259/PL259/Nmale | Yes | | Comet CFX514N | |
| SO239 SO239/SO239/SO239 | No | | Comet CFX514J | |

For duplexer/triplexer prices, see the Price Guide under each respective manufacturer.

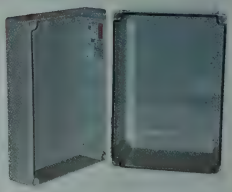
## GROUNDING ACCESSORIES

**GBIS18114AE** 1/8" Copper Entrance Ground Bar Kit Installs at shack entrance, making a short connection to the ground system. Holds up to five PolyPhaser IS-50-type lightning protectors. Insulated stand-off brackets allow attaching and insulating of ground bar from mounting surface. Two HD terminal lugs and hardware included. Attach grounding wires from 1/0 stranded to #6 solid..... **$27.99**

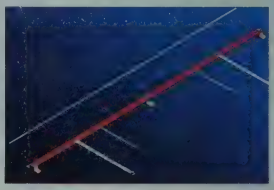
**GEL3AE** Pkg. of 5 HD terminal lugs ..... **$15.99**



**GP1868.78AE** 1/8 in. Copper Single Point Ground Panel Kit Provides single-point grounding for two transceiver lines and rotor control cable. Installs at tower base or on outside wall. Sized to fit inside a NEMA-4X style box for weather proofing. Tapped holes and hardware provided for mounting a PolyPhaser IC-RCT rotor control protector and up to two IS-50 series coaxial protectors. Sandwich plates and hardware included ..... **$54.99**



**GBX976AE** NEMA 4X Waterproof Enclosure *(right)* Accepts GP1868.78AE ground panel **$89.99**



**GBIS18148AE** 1/8" Copper Station Ground Bar Kit Installs at back of operating desk. Grounds individual components to a common point preventing multiple ground paths and daisy-chains. Accepts a heavy ground conductor to be routed to station ground or entrance ground bar. Includes two heavy 12 in. straps for equipment and two light duty 1/4 in. straps for accessories, plus an extra 1/4" strap and lugs for added assemblies ..... **$64.99**

We accept I.M.P.A.C.® Government Credit Cards

ANTENEX

## MOUNTS

**MB-8PST** Permanent Brass Hole Mount (NMO) Quality brass alloy, silver-soldered ground lug. Mounts in 3/4" hole. Comes with 17' RG-58A/U stranded cable, Teflon® PL-259 connector . **$15.99**

**GB-8PSTI** NMO Magnetic Mount For temporary vehicle installs. Strong (90 lbs. pull), protective mylar sole prevents scratches. With 12' RG-58A/U cable and Teflon® PL-259 connector ..... **$29.99**

**LBMB-9034** "L" Bracket for Mirror Mount Strong, extruded aluminum. Accepts various 3/4" hole mounts. Black (plain pictured)..... **$10.99**

**VTPM** Plate Mount 1" think NMO plate mount (UHF barrel)..... **$15.99**

MFJ MFJ ENTERPRISES, INC.

**931** Artificial Ground Unit Eliminates problems caused by inadequate grounding when using random length wire antennas. It resonates an additional length of wire to act as a tuned counterpoise. It results in easier tuning, improved efficiency, a better radiation pattern and reduced TVI/RFI. Covers 1.8 to 30MHz, RF ammeter tuning indicator. 7.5"w x 3.5"h x 7"d. *Not for coax fed antennas* ..... **$89.99**

**270** Lightning Surge Protector Safeguard ham gear from damage due to static charges & lightning induced surges. Replaceable ultra-fast gas discharge tube safely shunts up to 5000 amps of peak impulse current to an independent ground. Rated to 400W PEP, usable up to 1000MHz..... **$29.99**

## DC SALES

**TENNA HITCH** A heat treated, high strength aluminum bracket with insulated 3/8" x 24 mounting stud. Installs under the ball of any Class-I or II hitch. Handles the largest mobile antennas, and does not interfere with trailer towing capability. No holes to drill. All hardware is supplied ..... **$38.99**

Kleinhuis North America, Inc.

**1309** Isolated Ground Bar Perfect for grounding data patch panel racks and marine applications. Provides additional panel, sub-panel or control panel grounding. Lay-in style. Adapts easily for design/build applications, mounts to back panel or wall surface. Corrosion resistant, nickel-plated, copper clamping rail. Includes locking protective hinged cover. UL listed, CSA approved. 600V maximum. Accepts 8 to 12 (AWG) stranded or solid copper wire 7.5"w x 1.75"h ..... **$14.99**

Secure
www.aesham.com

# PolyPhaser® CORPORATION

The primary rule for protecting ham radio equipment against lightning damage is connection of all elements to a single, low impedance, ground system within the hamshack. This includes antenna, antenna support (pole, tower, etc.), and all station protectors (antenna, power, telephone, rotor, etc.).

## BROADBAND COAXIAL PROTECTORS

Hermetically-sealed gas tubes and additional components assuring surge voltages and currents that are formed diffentially on coaxial cable are prevented from being shared by valuable equipment. DC blocked for maximum protection. • Low loss • Multi-strike capability with low strike throughput energy • Aluminum enclosure • Wide frequency range, low VSWR • Works on all equipment • Silver-center, TFE, UHF connectors • Silver shell and gold pin Type-N

**Flange Mount** *(left)*

**IS-50UX-C0** 1.5–400MHz • HF 2kW, VHF 375W, UHF 125W • UHF connector..... **$61.99**

**IS-50UX-C1** 50–700MHz • VHF 375W, UHF 125W • UHF connector..... **$61.99**

**IS-50NX-C2** 125–1000MHz • VHF 375W, UHF 125W/50W (low/high) • Type-N conn ..... **$61.99**

**Bulkhead Mount** *(middle)*

**IS-B50LU-C0** 1.5–400MHz • HF 2kW, VHF 375W, UHF 125W • UHF connector..... **$64.99**

**IS-B50LU-C1** 50–700MHz • VHF 375W, UHF 125W • UHF connector..... **$64.99**

**IS-B50LN-C2** 125–1000MHz • VHF 375W, UHF 125W/50W (low/high) • Type-N conn ..... **$64.99**

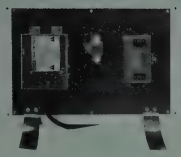
**Isolated Port Bulkhead Mounts** *(right)*

DC block for the center conductor and blocks the shield's surge energy from the equipment chassis.

**IS-IE50LN-C1** 50–700MHz • VHF 375W, UHF 125W • Type-N connector..... **$109.99**

**IS-IE50LU-C0** 1.5–400MHz • HF 2kW, VHF 375W, UHF 125W • Type-N connector ... **$119.99**

## GROUNDING PANEL



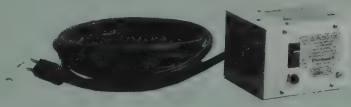
**CU-SPGP** A heavy 0.062" copper plate mounted on 1/2" plywood. For mounting protectors and establishing the important single grounding point for all station equipment. Comes with concrete anchors, mounting screws, two rolls of 10' x 1.5" copper grounding strap and 2 copper, 18"w x 12"h, sandwich bars, 16" on-center mount ..... **$69.99**

## ROTOR CONTROL PROTECTOR

**IS-RCT** *(left)* 8-wire protection for rotor control box and other nearby equipment. Water tight with mounting stud ..... **$54.99**

## IN-LINE PHONE LINE PROTECTOR

**IS-SPTL** *(right)* Multi-stage protection for telephone trunk lines. Handles ring voltages up to 105V, surges up to 36kA ..... **$57.99**



## POWER LINE EXTENSION PROTECTOR

In-line, multi-stage protectors provide multi-strike line protection, filtering and proper grounding for a 120V AC line. 2 grounded outlets, power switch, and circuit breaker. All aluminum grounded enclosure, 4.75" wide.

**IS-PLDO-120-15A** 15', 120V/15A ..... **$159.99**

**IS-PLDO-120-20A** 6' cord, 120V/20A . **$199.99**

## LOW INDUCTANCE COPPER STRAP

A larger surface area and lower inductance gives strap a huge advantage over wire for RF grounding and lightning protection. Cannot be fused open by lightning. Usable above or in-ground, #26 AWG thickness. Available in 1.5" or 3" widths and 25', 50', 75' or 100' rolls. See Price Guide for details.

# GLEN MARTIN ENGINEERING

CSA Certified

## FULL BODY CLIMBING HARNESSES

**SkyClimber™** *(left)* Chest-high front D-ring for fixed climbing. Made of polyester, easy on/off. Two D-ring harnesses offer sliding D-ring at center of back, and chest-high front D-ring. Four D-ring harnesses have sliding D-ring at center of back, chest-high front D-ring, and D-ring on each hip.

**FP-5600** Two D-ring, 2.7 lbs., S-M ..... **$89.99**

**FP-5601** Two D-ring, 2.8 lbs., L-XL ..... **89.99**

**FP-5602** Four D-ring, 3.0 lbs., S-M..... **106.99**

**FP-5603** Four D-ring, 3.2 lbs., L-XL ..... **106.99**

**StarClimber™** *(right)* Six D-ring tower saddle harnesses with padded seat and shoulder straps, and removable tool belt. Sliding D-ring at center of back, chest-high front D-ring, D-ring on each hip and each end of seat strap, black 1.75" nylon tongue buckle leg strap, red 1.75" polyester shoulder straps, two accessory rings attached to 5" padded backpad and seatstrap, and carry-all bag.

**FP-6600** 5.0 lbs., extra small..... **$260.99**

**FP-6601** 5.1 lbs., small..... **236.99**

**FP-6602** 5.2 lbs., medium..... **236.99**

**FP-6603** 5.3 lbs., large ..... **236.99**

**FP-6604** 5.4 lbs., extra large ..... **236.99**

# EASY-UP ANTENNA TRIPODS

**UPS SHIPPABLE**

The use of a self-supporting antenna mount makes a neat and attractive installation without guy wires. EZ-Ups are Heavy-Duty and Self-supporting – made out of 1-1/4 in. tubular steel with triple corrsion protection inside and out. Double embossed collars with six locking screws hold masts up to 1-3/4 in. Fast, one-person installation, the legs extend to any rafter spacing. Shipped completely assembled and includes a pitch pad kit and lag screws.

**EZ 48-3ABX** *(right)* 3 ft. high, 8.5 lbs..... **$24.99**

**EZ 48-5ABX** *(right)* 5 ft. high, 12 lbs..... **$34.99**

**EZ 5-16** 5' 16 ga. steel mast (Pick-up only) **$7.99**

**EZ 29-24S** **Heavy-duty Double-strap Chimney Mount** *(left)* Mount includes two "Y" type mounts and 24' of stainless steel strap ..... **$17.99**

# ALPHA DELTA

**DELTA-C** **Antenna Insulator Kit with Surge Protection** A center and two end insulators. For dipoles and wire antenna using either coax or balanced feed line. Highest quality, made from an virtually unbreakable UV/RF resistant material, rated full legal power. Stainless steel hardware used in the center insulator, and all connections are hard soldered. A built-in replaceable Arc-Plug® provides surge protection..... **$29.99**

**DELTA-CIN** End Insulator only..... ea. **$1.99**

**SEP** Replacement Arc-Plug® cartridge..... **$15.99**

# MFJ ENTERPRISES, INC.

**1925** **Controller for Yaesu ATAS-Series Antennas** A handy in-line switch that controls the motorized up/down tuning function of Yaesu screwdriver antennas by putting the DC control voltage on the center conductor of the coax. Works with most rigs except the Icom IC-706 series, which requires a special control cable. When the up/down switch is pressed, the 706 will transmit 10W CW while monitoring for lowest SWR. When switch is released, the 706 returns to previous mode and power (order model 1925I2) ea. **$59.99**

## MA SERIES CRANK-UP TUBULAR TOWERS

handle 10 sq. ft. antennas at 50mph winds

| Model | Height max. | Height min. | Sections | Weight (in lbs.) | Section OD top/bottom | Base | Price |
|---|---|---|---|---|---|---|---|
| MA-40 | 40' | 21'6" | 2 | 242 | 3"sq./4.5" | 12"x12"x12" | $849.99 |
| MA-550 | 55' | 22'1" | 3 | 435 | 3"sq./6" | 18"x18"x18" | $1399.99 |
| MA-550MDP* | 55' | 22'1" | 3 | 620 | 3"sq./6" | 3'x3'x5' | $2729.99 |
| MA-770 | 70' | 22'10" | 4 | 645 | 3"sq./8" | 3'x3'x6' | $2359.99 |
| MA-770MDP* | 70' | 22'10" | 4 | 880 | 3"sq./8" | 3'x3'x5.5' | $3729.99 |
| MA-850 | 85' | 23'6" | 5 | 943 | 3"sq./10" | 4'x4'x6' | $3649.99 |
| MA-850MDP* | 85' | 23'6" | 5 | 1128 | 3"sq./10" | 4'x4'x6' | $5029.99 |

*Complete with heavy-duty motor drive with positive pull down. **Standard bases and eave mounts included (except MA-770, 770MDP and 850MDP).

## FREE STANDING CRANK-UP TOWERS

handle 18 sq. ft. antennas at 50mph winds

| Model | Height max. | Height min. | Sections | Weight (in lbs.) | Section OD top/bottom | Base | Price |
|---|---|---|---|---|---|---|---|
| TX-438 | 38' | 21'6" | 2 | 355 | 12.5"/15" | 3'x3'x5' | $979.99 |
| TX-455 | 55' | 21'6" | 3 | 670 | 12.5"/18" | 3'x3'x6' | $1579.99 |
| TX-472 | 72' | 22'8" | 4 | 1040 | 12.5"/21.625" | 4'x4'x7' | $2459.99 |
| TX-472MDP* | 72' | 22'8" | 4 | 1210 | 12.5"/21.625" | 4'x4'x7' | $3999.99 |
| TX-489MDPL** | 89' | 23'4" | 5 | 1800 | 12.5"/25.625" | 4'x4'x8.167' | $6429.99 |

*Includes heavy-duty motor drive with positive pull down.
**Comes with heavy-duty motor drive with dual level wind and positive pull down. Also includes fully operational limit switch package.

## FREE STANDING HEAVY-DUTY CRANK-UP TOWERS

handle 30 sq. ft. antennas at 50mph winds**

| Model | Height max. | Height min. | Sections | Weight (in lbs.) | Section OD top/bottom | Base | Price |
|---|---|---|---|---|---|---|---|
| HDX-538 | 38' | 21'6" | 2 | 600 | 15"/18" | 3'x3'x6' | $1269.99 |
| HDX-555 | 55' | 22' | 3 | 870 | 15"/21.625" | 4'x4'x6' | $2269.99 |
| HDX-572MDPL* | 72' | 22'8" | 4 | 1600 | 15"/25.625" | 4'x4'x8.167' | $5899.99 |
| HDX-589MDPL* | 89' | 23'8" | 5 | 2440 | 15"/30.625" | 5'x5'x8.5' | $7699.99 |
| HDX-689MDPL* | 89' | 23'8" | 5 | 3450 | 18"/37.125" | 5'x5'x9.5' | $14999.99 |
| HDX-5106MDPL* | 106' | 24'8" | 6 | 3700 | 15"/37.125" | 5'x5'x9.5' | $15999.99 |

*Includes heavy-duty motor drive with dual level wind and positive pull down and fully operational limit switch package.
**HDX-689MDPL rated 60 sq. ft. and HDX-5106MDPL rated 35 sq. ft.

## FREE STANDING "LOW-PROFILE" COMPACT CRANK-UP TOWERS

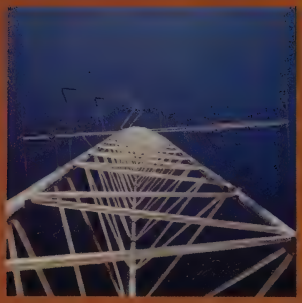
SS models handle 18 sq. ft. antennas, HD handles 24 sq. ft., at 50mph winds

| Model | Height max. | Height min. | Sections | Weight (in lbs.) | Section OD top/bottom | Base | Price |
|---|---|---|---|---|---|---|---|
| TMM-433SS* | 33' | 11'4" | 4 | 315 | 10"/18" | 3'x3'x4' | $1139.99 |
| TMM-433HD | 33' | 11'4" | 4 | 400 | 12.5"/20.875" | 3'x3'x5' | $1379.99 |
| TMM-541SS | 41' | 12' | 5 | 430 | 10"/20.875" | 3'x3'x4.5' | $1499.99 |

*Includes heavy-duty motor drive with dual level wind and positive pull down and fully operational limit switch package.
**HDX-689MDPL rated 60 sq. ft. and HDX-5106MDPL rated 35 sq. ft.



* All towers are drop shipped direct from the factory. Shipment is FOB Visalia, CA via truck. Additional freight charges will apply. Ask for details.
** Any tower purchased with a MDP-750 or MDPL-1000 motor drive MUST be purchased with either the MCL-100 or the RMC-1000.
*** Full US Tower catalog available free, ask dealer for details.



# UNIVERSAL TOWERS

## ALUMINUM, FREESTANDING, SELF-SUPPORTING AT RATED LOAD

Universal offers 10-foot easy-to-assemble sections or complete towers ranging from 30 to 100 feet with a choice of wind load ratings and accessories. The lightweight, rust-free, strong, aluminum sections are equilateral, triangular, welded trusses available in 11, 14, 18, 22, 26 or 30-inch widths. To choose the proper tower: a) Determine the projected surface area of the mountable antenna. This figure is often found in the accompanying antenna literature. If not, use the following standards: standard TV antennas = 2 sq. ft. in area; 6/10 meter beams and large TV antennas = 5 sq. ft.; 20/40 meter beams = 9 sq. ft.; large 20/40 meter beams or multiple antenna arrays = 18–26 sq. ft. [when using a rotator, add 1 sq. ft., plus 1 sq. ft. for the mast, to the antenna size] b) Decide on the desired tower height. [sectional towers provide the option to add height later] c) Choose a model based on height and windload. Model numbers are merely wind load followed by height. [eg. Model 5-50 = 5 sq. ft. wind load + 50' desired height]

# hy-gain ROTATORS

## . . . the first choice of hams around the world!

### The HAM-IV

is the most popular rotator in the world! It is designed for medium communications arrays of up to 15 sq. ft. wind load area. Low temperature grease permits normal operation down to -30° F. New alloy ring gear gives extra strength up to 100,000 PSI for maximum reliability. The indicator potentiometer leads have ferrite beads to reduce RF susceptibility. For convenience a Cinch® plug connector is used at the rotor plus an 8-pin plug at the control box. Dual 98 ball bearing race for load bearing strength and electric locking steel wedge brake prevents wind induced antenna movement. North or South center meter scale. Maximum mast size: 2.063 in..... **$529.99**

*Ham-IV Specifications*

| | |
|---|---|
| Wind Load cap.(inside tower) | 15 square feet |
| **Wind Load (w/mast adapter)** | **7.5 square feet** |
| Turning Power (in lbs.) | 800 |
| **Brake Power (in lbs.)** | **5000** |
| Brake Construction | Electric Wedge |
| **Ball Bearing Assembly** | **Dual race/96 bearings** |
| Mounting Hardware | Clamp plate/steel U-bolts |
| **Control Cable Conductors** | **8** (Belden 8448 or 9405) |
| Shipping Weight (lbs.) | 24 |
| **Effective Moment (tower)** | **2800 ft/lbs.** |

### The TAILTWISTER SERIES II

is designed for medium communications antenna arrays of up to 20 sq. ft. wind load area. Available with DCU-1 Pathfinder Digital control box (T-2XD) or standard Analog control box (T-2X). Low temperature grease, alloy ring gear, indicator potentiometer, ferrite beads on potentiometer wires, weatherproof AMP connectors plus 8-pin plug at the control box. Triple bearing race with 138 ball bearings for large load bearing strength, electric locking steel wedge brake, North or South center meter scale, low voltage control. Maximum mast size: 2.063 in. **T-2X** with analog control..... **$619.99**
**T-2XD** with DCU-1 control ..... **$979.99**

*TAILTWISTER Specifications*

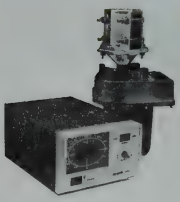
| | |
|---|---|
| Wind Load cap.(inside tower) | 20 square feet |
| **Wind Load (w/ mast adapter)** | **10 square feet** |
| Turning Power (in lbs.) | 1000 |
| **Brake Power (in lbs.)** | **9000** |
| Brake Construction | Electric Wedge |
| **Ball Bearing Assembly** | **Triple race/138 bearings** |
| Mounting Hardware | Clamp plate/steel U-bolts |
| **Control Cable Conductors** | **8** (Belden 8448 or 9405) |
| Shipping Weight (lbs.) | 28 |
| **Effective Moment (tower)** | **3400 ft/lbs.** |

### THE HAM-V

Designed for medium communications antenna arrays of up to 15 sq. ft. wind load area. Includes the innovative DCU-1 Pathfinder control unit. A strong 100,000 p.s.i alloy ring gear and a new indicator potentiometer have been added for improved reliability. For convenience, a Cinch® connector is used at the rotor and an 8-pin plug at the control box. Ferrite beads reduce RFI. Powder coated finish. Max. mast size: 2.063 in..... **$899.99**

*HAM-V Specifications*

| | |
|---|---|
| Wind Load cap.(inside tower) | 15 square feet |
| **Wind Load (w/mast adapter)** | **7.5 square feet** |
| Turning Power (in lbs.) | 800 |
| **Brake Power (in lbs.)** | **5000** |
| Brake Construction | Electric Wedge |
| **Ball Bearing Assembly** | **Dual race/96 bearings** |
| Mounting Hardware | Clamp plate/steel U-bolts |
| **Control Cable Conductors** | **8** (Belden 8448 or 9405) |
| Shipping Weight (lbs.) | 24 |
| **Effective Moment (tower)** | **2800 foot/lbs.** |



### The HDR-300A

is the best for king-sized antenna arrays up to 25 sq. ft. wind load. Machined steel output gear. Tough, hardened stainless steel output shaft with a long keyway for added reliability. North or South centered calibration, Ferrite beads are installed on the potentiometer wires to reduce RF susceptibility, Heavy-duty self-centering steel mast clamp and hardware. Digital heading display accurate to 1°. Mast size: 1.25"-3" .. **$1229.99**

*HDR-300A Specifications*

| | |
|---|---|
| Wind Load capacity | 25 square feet |
| **Wind Load (w/mast adapter)** | **N/A** |
| Turning Power (inch lbs.) | 5000 |
| **Brake Power (inch lbs.)** | **7500** |
| Brake Construction | Solenoid operated locking |
| **Bearing Assembly** | **Bronze sleeve w/rollers** |
| Mounting Hardware | Stainless steel bolts |
| **Control Cable Conductors** | **7** (Belden 8448 or 9405) |
| Shipping Weight (lbs.) | 55 |
| **Effective Moment (tower)** | **5000 ft/lbs.** |

### The AR-40

is for large FM-TV and compact communication antenna arrays up to 3.0 sq. ft. wind load area. The dual 12 ball bearing race is exclusive in its class. Automatic position sensor never needs resetting. Fully automatic control, just dial and touch for any desired location. Solid state, low voltage control. Safe and silent operation. Maximum mast size: 2.063 in. Includes light duty lower mast support.... **$269.99**

*AR-40 Specifications*

| | |
|---|---|
| Wind Load cap.(inside tower) | 3.0 square feet |
| **Wind Load (w/mast adapter)** | **1.5 square feet** |
| Turning Power (inch lbs.) | 350 |
| **Brake Power (inch lbs.)** | **450** |
| Brake Construction | Disc Brake |
| **Ball Bearing Assembly** | **Dual race/12 bearings** |
| Mounting Hardware | Plated clamps/steel bolts |
| **Control Cable Conductors** | **5** (Belden 8448 or 9405) |
| Shipping Weight (lbs.) | 14 |
| **Effective Moment (tower)** | **300 ft/lbs.** |

### The CD-45-II

handles 8.5 sq. ft. mounted inside a tower, or 5 sq. ft. with mast adapter. Low temperature grease good to -30°F. Bell rotator design gives total weather protection, dual 58 ball bearing race gives proven support. Die-cast ring gear, stamped steel gear drive, heavy duty, trouble free gear train, North or South center scale, lighted directional indicator, 8-pin plug on control unit, snap-action control switches, low voltage control, safe operation, takes masts up to 2.063". Includes light duty lower mast support..... **$369.99**

*CD-45-II Specifications*

| | |
|---|---|
| Wind Load cap.(inside tower) | 8.5 square feet |
| **Wind Load (w/mast adapter)** | **5.0 square feet** |
| Turning Power (inch lbs.) | 600 |
| **Brake Power (inch lbs.)** | **800** |
| Brake Construction | Disc Brake |
| **Ball Bearing Assembly** | **Dual race/48 bearings** |
| Mounting Hardware | plated clamps/steel U-bolts |
| **Control Cable Conductors** | **8** (Belden 8448 or 9405) |
| Shipping Weight (lbs.) | 22 |
| **Effective Moment (tower)** | **1200 ft/lbs.** |

### The DCU-1 PATHFINDER

**Digital Rotator Control unit compatible with CD-45-II, HAM-IV, T-2X**

Automatic operation of brake and rotor with digital readout out of your beam heading, accurate to 1°, and 360° choice for center of rotation. Automatic 8-second brake engagement delay reduces stopping torque stress. Six presets store favorite headings. RS-232 computer control, compatible with many logging and contest programs .. **$599.99**

### Rotator Accessories

**MSHD** Heavy duty lower mast support for Ham-IV/V, T-2X/XD ..... **$99.99**
**MSLD** Lower mat support for CD-45-II, AR-40 ..... **$39.99**
**TSP-1** Tower spacer plate ..... **$34.99**

We accept I.M.P.A.C.® Government Credit Cards

# YAESU

## ROTATORS

Precision designed for a wide variety of antenna installations • Strong, weatherproof, die-cast aluminum enclosures • Permanently lubricated for years of smooth, quiet operation • 450° Rotation • Selectable north or south center • Quiet, gear reduction braking • 117/220 VAC • Fits most USA-made tower shelves.

**G-2800DXA** *(left)* The top-of-the line rotator for extra heavy-duty applications. 450° total rotation, with presets • 34 sq. ft. wind load • K-factor of 6870 ft. lbs. • 1808 ft lbs. of stationary torque • Rotation torque: 57.8-181 ft. lbs., rotation speed and torque vary with the speed control setting • Maximum vertical load of 661 lbs. • ±1/2° backlash • 1.875–2.5" mast size • 48-150 second 360° rotation • Optional GS-232A interface • Includes 131' (40m) of 6-wire cable • 8"dia. x 13.375"h • 13.2 lbs..... **$1139.99**

**G-1000DXA** *(right)* High-performance for medium and heavy-duty applications. Total rotational range 450°, with presets • 23 sq. ft. wind load • K-factor of 2020 ft. lbs. • 433 ft lbs. of stationary torque • Rotation torque: 43-79 ft. lbs., rotation speed and torque vary with speed setting • Max. vertical load: 440 lbs. • ±2° backlash • 1.5–2.5" mast • 35-74 sec. 360° rotation • Optional GS-232A interface • Requires 6-wire cable • 7.5"dia. x 12.5"h • 7.7 lbs ..... **$519.99**

**G-450A** *(left)* For HF/VHF light to medium-duty applications, without presets • 10 sq. ft. wind load • K-factor of 722 ft. lbs. • 217 ft lbs. of stationary torque • Rotation torque: 43 ft. lbs. • Maximum vertical load of 220 lbs. • 1.5-2.5" mast size • 53 second 360° rotation • Requires 5-wire cable • 7.5"dia. x 12.5"h • 7 lbs ..... **$259.99**

**G-5500** *(right)* Azimuth-Elevation rotator combo for satellite earth station & other space communication antennas • 11 sq. ft. wind load • 578 ft. lbs. K-factor • 145 ft lbs. stationary torque • Rotation torque: 44 ft. lbs. • 440 lbs. max. vertical load • ±4% backlash • 1.5–2.5" mast • 58 sec. 360° rotation • 67 sec. 180° elevation • Opt. GS-232A interface/C-1000 cable • 1.25–1.625" boom dia. • Requires 2 x 6-wire cable • 12.5"dia. x 7.5"h, 20 lbs ..... **$629.99**

**G-550** Elevation rotator, for satellite earth station and other space communication antennas • 12 sq. ft. wind load • K-factor of 578 ft. lbs. • 101 ft lbs. of stationary torque • Rotation torque: 73 ft. lbs. • Maximum vertical load of 440 lbs. • ±3% backlash • 1.5–2.5" mast size • 67 second 180° elevation • 1.25–1.625" boom diameter • Requires 6-wire cable • 10.5"dia. x 7.5"h • 7.3 lbs ... **$299.99**

**G-800DXA** *(left)* High-performance for medium-duty applications. Total rotational range 450°, with presets • 17 sq. ft. wind load • K-factor of 1299 ft. lbs. • 288 ft lbs. of stationary torque • 43-79 ft. lbs. rotation torque, rotation speed/torque vary with the speed control setting • Max. vertical load of 440 lbs. • ±2° backlash • 1.5–2.5" mast • 35-74sec. 360° rotation • Optional GS-232A interface • Requires 5-wire cable • 7.5"dia. x 12.5"h • 7.5 lbs ... **$429.99**

**G-800SA** *(right)* High performance for medium-duty applications. Total rotational range 450°, no presets • 17 sq. ft. wind load • K-factor of 1299 ft. lbs. • 288 ft lbs. of stationary torque • 43-79 ft. lbs. rotation torque, rotation speed/torque vary with the speed control setting • Max. vertical load of 440 lbs. • ±2° backlash • 1.5–2.5" mast size • 44 second 360° rotation • Quick-disconnect plug • Requires 5-wire cable • 7.5"dia. x 12.5"h • 7.5 lbs ... **$339.99**

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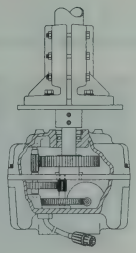
# M²



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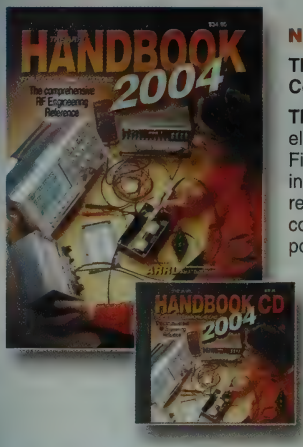


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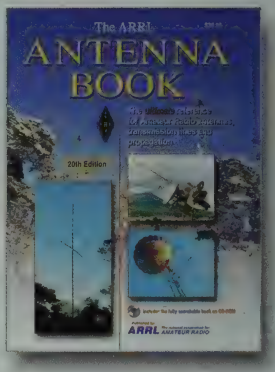


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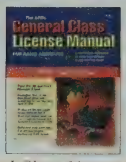

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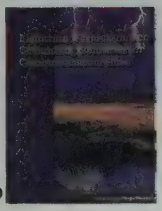

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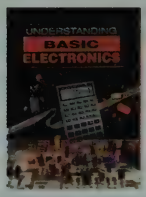


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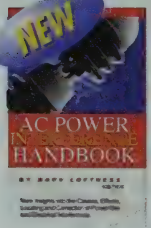


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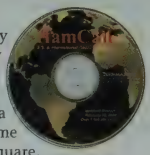


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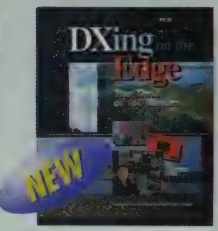


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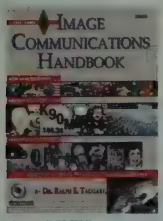


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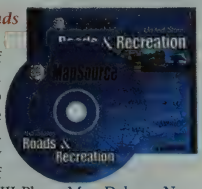


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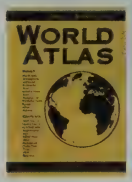
2004 shortwave listening guide, containing 176 pages, zeros in on news, sports and entertainment around the world. This book includes a channel-by-channel guide to world band schedules, reviews of radios and accessories, and loads of advise for the shortwave listener... **ARR 245 $22.95**

### *World Radio TV Handbook*

The world's most comprehensive and up-to-date guide to medium-wave, shortwave & FM broadcasting for the serious radio listener. Articles like "How to Build a Receiving Station" and "DXing in the South Pacific." Latest reviews... **WAT 059685 $29.95**

### *Radio Amateur's World Atlas*




16 pages of colorful maps covering the Americas, West Indies, Asia, Japan, Australia and the Pacific Ocean, Europe, Africa, and Antarctica. **ARR 347 $9.95**

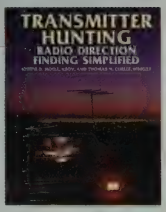
### *The ARRL World Grid Locator Atlas*

Contains Information on the locator system and maps showing all 32,400 Maidenhead Locator Squares..... **ARR 180 $5.00**

### *2003/04 TravelPlus for Repeaters™ v7.0*

Make TravelPlus your traveling companion, and you'll never be alone on the road. Locate ham radio repeaters along any US or Canadian travel route using this map-based software. Point and click. It's that easy! • Integrated maps and repeater data • Access the entire 2003/04 ARRL VHF/UHF Repeater Database and ARRL Repeater Directory text • Choose maps that display major highways and cities in the US and Canada, or more detailed maps, or use your own scanned maps • Trace a route on colorful maps and find all repeaters within a specific range • Customize repeater information • Supports real time GPS tracking • NEW! Works with other third party software • Requires Windows 98SE-XP ..... **ARR 323 $39.95**

### *Transmitter Hunting - Radio Direction Finding Simplified*




How to use transmitter hunting both for practical purposes and fun. Using this information, locate radio frequency jammers, other malicious interference and downed aircraft; engage in "T-hunting;" and help search and rescue groups. Chapters cover getting started, equipping a vehicle, hunting techniques, antennas, RDF skills and more!... **ARR 320 $24.95**

### *Police Call*

Frequency guide and reference for scanner users. Packed with information to help get the most out of using a scanner. Covers Illinois, Indiana, Kentucky, Michigan, Ohio & Wisconsin or Arizona, Colorado, Idaho, Iowa, Kansas, Minnesota, Missouri, Montana, Nebraska, Nevada, New Mexico, The Dakotas, Utah, & Wyoming. 600 pp. and CD. **POL VOL3/42003 or VOL5/82003 $19.99**

### *Geochron World Watch Software and Screen Saver*

See time for locations you create, or select from over 475 predefined cities. Illuminates areas currently experiencing daylight (sunrise/set), also highlights changing seasons. Global daylight savings time auto adjusts. Options to change colors and features. Requires Windows® 95 or later, 4MB memory (16MB recommended), 5MB free space..... **GEO WORLDWATCH $49.99**

### *Celestron Sky Map*

Big, durable, 11.25" x 13.75", spiralbound, book. Contains basic star map and glow-in-the-dark star finder, seasonal star charts, constellations and characteristics of stars..... **CEL 93722 $19.99**

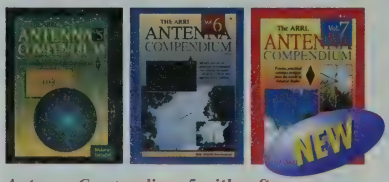
*Planisphere and Planet Finder*
Spin disk until time of night lines up with the time of month. Place planets using guide on the back. Facing south, hold guide overhead with "south" at bottom of chart. The star and planet positions will match... CEL 93720-40 C/O **$6.99**

## PERIODICALS

*ARRL Periodicals on CD-ROM*
Complete text and illustrations for all articles in *QST*, *QEX* and *NCJ* by full year. CD includes: • Search engine • Bookmarking tools • Windows printing and clipboard support. Find info by title, call sign, name, keyword or click web links. Also includes source code for software projects and PC board etching patterns. Windows™ 3.1 or higher. 1995-02 (1 year/CD) **ARR 254, 257, 259, 263, 266-269** each **$19.95**

*QST Views*
Back issues of QST available in full years on CD-ROM. Every page is stored as a black-and-white image that can be read or printed. Easy to use software allows you to: • Search by title and author • Select by year and issue • Browse individual articles. For Windows™ 3.1 or higher. 1970-99; 5 yrs/CD ..... **ARR 104 thru ARR 109** (ea.) **$39.95**

## ANTENNAS

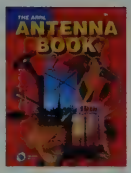



*Antenna Compendium 5 with software*
Baluns, HF beams, yagis and quads are just some of the subjects covered. Articles on antennas, transmission lines and propagation. Projects to build. Includes IBM software for plotting antenna model data files ..... **ARR 139 $20**

*Antenna Compendium 6 with software*
More articles on antennas, transmission lines and propagation. More projects ..... **ARR 137 $22.95**

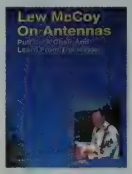
*Antenna Compendium Volume 7*
Hooray for antennas! The seventh in the Compendium series. Inside, find articles covering a wide range of antenna-related topics including, measurements and computations, mobile and multibands, practical tips and propagation and ground effects. This volume includes even more articles on low-band antennas and operating, and great designs for mobile operation. 208 pages ..... **ARR 140 $24.95**

*Antenna Book with IBM software*
Book covers all aspects of design, theory & construction, with software for design, propagation forecasting and much more..... C/O **ARR 126 $24.95**



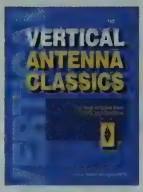
*Simple and Fun Antennas*
Lots and lots of real-world, practical antennas you can BUILD YOURSELF! 16 chapters on different types of HF, VHF antennas, masts and supports, towers and performance. 70 useful projects..... **ARR 304 $22.95**

*W6SAI HF Antenna Handbook*
Lots of inexpensive, practical projects that work. Great guide for constructing loops, yagis & verticals. CQX W6SAIHFANT **$19.99**

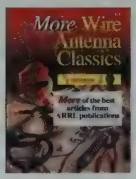


*McCoy on Antennas*
Pull up a chair and learn from the master! Loaded with antenna projects for Tech thru Extra class. CQX LEWMCCOY **$15.99**

*Vertical Antenna Classics*
A range of articles from *QST* and the *Antenna Compendium* series. Selected tips and techniques from QST's "Hints & Kinks". Includes theory, modeling, VHF, UHF, HF, directional arrays, reduced size, radials and ground, antenna product suppliers ..... **ARR 329 $12**



*Yagi Antenna Classics*
Collection from QST, QEX & others. Provides a historical perspective, novel and ambitious ideas, as well as computer-optimized designs. Chapters on mono/multibanders; HF, VHF and UHF beams; computer modeling; masts .... **ARR 350 $17.95**



*Wire Antenna Classics*
Wire antennas ranging from simple to complex. Find one to deliver the performance you want. Dipoles, broadband and multi-band dipoles, loops, collinears, rhombics, wire beams, vertically polarized and receive antennas are all featured, even a chapter on tree-mounted antennas... **ARR 344 $14**

*More Wire Antenna Classics*
Enjoy even MORE wire antennas! Filled with innovative designs from the pages of QST and other ARRL publications ..... **ARR 208 $14**

## Q-VIEW QSL CARD HOLDERS

Proudly display your favorite QSL cards in these 12" x 40" clear plastic hanging holders. Each holds 20 3.5" x 5.5" cards. Open at center to receive cards easily. Pack of three (displays 60 cards)..... **$18.99**

**Power Pocket** Portable power for emergencies, hamfests, hiking, etc. The 12V @ 2A/hour sealed lead-acid rechargeable battery provides up to 6X longer talk time than standard packs. Recharges completely in 6-8 hours, with supplied charger. Partial discharges can be recharged to 100% without memory effect. Radio conveniently plugs into included female adapter socket. Compact carrying case with belt loop and shoulder strap. 3.5"w x 1"d x 6.5"h, 30 oz..... **$66.99**

**72887** SUPERADIO III™ **High Performance, Long Range AM/FM Portable Radio** Long Range Reception: • Tuned RF stages on both AM and FM • 8" FM swivel whip antenna • 7.875" AM ferrite rod antenna. Station Selectivity and Separation: • Ceramic IF filter, plus 3 IF tuned circuits on FM • 4 IF tuned circuits on AM • Selectable normal or wide AM • Switchable AFC • Precision vernier tuning. Best Sound Quality: • 6.5" woofer, plus 2" tweeter • Separate bass and treble controls • Volume plus loudness circuitry to boost bass response at low volume levels. Other features: • Headphone jack • AM-FM external antenna terminals • Operates on AC power or 6 D-cells • Outstanding sound quality • Fold down carry handle • Rugged metal speaker grille • 12.75"w x 9"h x 3.25"d, 5 lbs..... **$49.99**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PowerPort

**HM-817 FT-817 Worldpouch** Designed specifically for the FT-817, the WorldPouch begs you to bring this extremely versatile radio and all of its accessories out into the field with ease. The rugged nylon fanny pack is designed for comfort and provides easy access to your radio through the zippered radio pouch. The fanny pack has two roomy accessory pockets, and there are multiple nylon loops and tie downs to secure your extra antennas, coax and any other necessities of the moment. The world pouch is well padded, has a built-in antenna pocket and a pocket for a battery (not included) for extended talk time in the field. One of the best features is that the radio pouch can also be removed from the fanny pack and will clip easily onto your belt for ultralight travel when desired ..... **$73.99**

**HMP-II WorldPackII Backpack** Transport a rig easily and safely. Small enough to qualify as carry-on luggage, or fits comfortably on your back. Clever radio elevator to adjust radio height. Constructed of laminated black heavy-duty nylon with 1/4" foam padding. Other tie down points to secure gear. Separate lower compartment for power supply or rechargeable battery with pass through holes for wiring. Comfortable body contoured mesh straps with webbing loops to attach handheld HT or GPS in sky view position. Two antenna pockets to secure multiple elements with tie downs and antenna sleeve to support them. Pocket in the lid to secure your microphone and act as a wind cover. 17"h x 8"w x 3"d..... **$67.99**

**WorldPack Rechargeable Power Kit** Designed to fit perfectly within the WorldPack. 8AH rechargeable gel cell power supply with labeled wire harness, female cigarette lighter plug, DC outlet and charger. Choice of two charger rates. Won't overcharge. Sold as an accessory to the WorldPack.

**HPP-8A** 2-stage, recharges overnight..... **$73.99**
**HP-8AF** Fast 2-stage charger will recharge from a full discharged state in 2.5 hours ..... **$119.99**

**Radio Glove** Pouches designed specifically for your radios. Their sleek profiles, constructed of fine glove quality leather, offer maximum protection without adding bulk and size to your mini-handheld. We've thought of all the little details that you've been wishing for, from the sturdy leather covered belt clip, to a pocket to stash extra accessories.... **$19.99**

*All available models listed in the Price Guide under Cutting Edge.*

## COMMUNICATIONS OUTFITTERS

**EXP-1 Expedition Pack** Designed for the Yaesu FT-817. Allows backpack style or table top operation with complete access to all controls, front and rear. Zippered pouch on both sides securely holds most any antenna in the collapsed position for travel. Radio compartment is divided so the top section will hold the FT-817, and the lower compartment can be used for an amplifier, tuner or other radios. Made of high quality, durable nylon with plastic panels for rigidity. Water-resistant. 12"w x 4"h x 15"d..... **$99.99**

UNI-SOLAR

SmartCharge flexible solar panels for advanced solar battery charging. Sized to charge and maintain 12V batteries. Flexible and durable design makes them very convenient to use.

**USF-5 5W Solar Panel** Ideally, provides up to 2A-hours a day and automatically compensates for battery self-discharge. For hams, boaters, RV owners and other battery users. Perfect for vehicles that stay idle for extended periods. • Lightweight • 10" x 20" • For lower use applications • 0.54 lbs..... **$89.99**

**USF-32 32W Solar Panel** Heavy duty, provides more than 12A-hours (ideally) a day. Meets demands for portable ham operations, lighting, radios, stereos, fish finders, etc. Use multiple units for more capacity. • 17" X 60" • 2.14 lbs. **$269.99**

VANCO

**P-212 2-Outlet Cigarette Plug Adapter** *(left)* Use two 12V accessories from 1 outlet..... **$4.99**

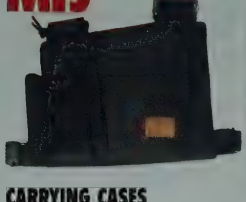
**P-212B Dual Cigarette Socket** *(top right)* Enables two 12 volt accessories to be used from one outlet, comes with replaceable 15 amp fuse..... **$8.99**

**P-12R 2-Contact Cigarette Plug** *(bottom right)* Solder type with strain relief and grip end... **$1.99**

**P-12V Cigarette Plug** Cigarette lighter plug with leads..... **$1.99**

**P-12X Cigarette Lighter Plug** Easy to use solderless plug. Crimp wire to terminals..... **$1.69**

MFJ MFJ ENTERPRISES, INC.



## CARRYING CASES

**18 HamGear™ Tactical Chest Harness** *(left)* Perfect for rugged use, emergency radio operators and on-the-go hams! Use it for portable hamfest use, DXpeditions, field day, biking, hiking, etc. Made of durable heavy duty twill burlap, this interwoven fabric is water resistant and will cushion blows and scrapes. Adjustable shoulder straps. Harness is firmly held in place by stretchable inter-woven elastic belt with snap hook and adjustable sliders supported by nylon straps. A 5 x 7 inch cargo pocket holds another radio, maps, etc..... **$29.99**

**15 HamGear™ Belt Radio Holder** *(right)* Durable twill burlap pocket with elastic cord and velcro closure easily stretches over any HT. Belt slides easily through 2 x 3 inch loop..... **$14.99**

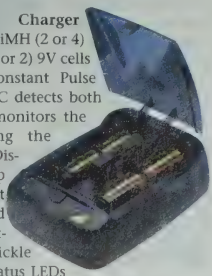
## BATTERIES

**92AA01 Super Ni-MH "AA" batteries** – they have twice the power of standard NiCads. Rated at 1300 mAh, these NiMH 1.2 volt batteries greatly extend operating time and do not exhibit the capacity reducing memory effect of NiCads. Perfect for use with the 259B/269 SWR analyzer with its built-in battery charging circuit. The 631 or 632 charger is recommended..... **$2.99**

**92AA10** Super NiMH 10-pack..... **$24.99**

## CHARGERS

**631 PowerHaus™ Trickle battery charger** Perfect for charging NiMH or NiCad rechargable batteries used in the 259B/269 SWR Analyzer or other equipment. It has a removable dust cover and an AC 12 Volt, 800mA wall adapter is included. Reverse polarity protection and a bright red LED indicator that shows charging status. Does NOT charge alkaline batteries. Charges 2 to 4 NiMH or NiCad "AA" batteries in 14 hours..... **$9.99**



**633 Intelligent Charger** Charges NiCad and NiMH (2 or 4) AAA, AA, C, D and (1 or 2) 9V cells • Ultra-fast, safe Constant Pulse Current charging • IC detects both +DV and -DV, and monitors the voltage level during the charging process • Discharge Mode deep conditions to correct memory effect, and can rescue dead batteries • Final trickle charge • Charging status LEDs • 120 VAC or 12 VDC operation..... **$24.99**

We accept I.M.P.A.C.® Government Credit Cards

# MAHA

## RECHARGEABLE NiMH BATTERIES

**4-AA-220BH** PowerEX AA NiMH Battery Now rated 1.2V @ 2200 mAh • Can be recharged 500-1000 times • Memory free – charge at anytime • Excellent for power intensive devices like Digital Cameras, MP-3 Players, GPS systems, etc ..... (pack of 4) **$18.99**

**9V** 8.4V, 170 mAH (9V sized) ..... ea. **8.99**

**MH-FNB-72** An ultra high capacity 1700mAh, 9.6V NiMH battery exclusively for the Yaesu FT-817. Includes the cable that enables recharging the pack in 3 hours using a MAHA MH-C777, MH-C777PLUS, or MH-C888 charger (all shown below) ..... **$59.99**

## CHARGERS

**MH-C401FS** Cool Charger Microprocessor controlled. Charges AA/AAA NiMH/NiCads, while keeping them cool. Includes 4 1800mAh AA's. Overcharge prevention. 100-minute or 5-hour ultra-cool charging..... Closeout **$39.99**

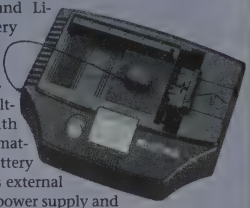
**MH-C401FS4AA2** Above, with 4 PowerEx 2200 mAh AA rechargeable NiMH's & car cord . **$49.95**

**MH-C204F** Smart Rapid Charger/Conditioner Charges 2 or 4 AA/AAA NiCad/NiMH rechargeables in 2-3 hours. Rejuvenate and restore dead batteries. 110V operation or can be used on 12V supply and in a car with the optional kit..... **$24.99**

**MH-C204F8AA22** Above, with 8 PowerEx 2200 mAh AA rechargeable NiMH's, car cord .... **$49.95**

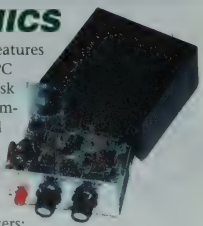
**MH-C888** Universal Drop-In Rapid Charger/Conditioner Special FLEX negative pulse feature prevents crystallization of 4.8 to 12V NiMH/ NiCad 2-way radio battery packs. Deep-conditioning feature allows 3 consecutive charge and discharges. Built-in switching AC power supply, for home, office and 12V portable use ..... **$59.99**

**MH-C777** Universal Charger/Conditioner Charge nearly any type of 4.8V to 12V NiCad or NiMH battery pack. Conditioning feature "exercises" batteries to improve capacity, and in some cases can rejuvenate a dead pack. 110 and 12V operation. Car kit is included..... **$49.99**



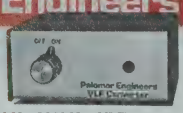
**MH-C777 PLUS II** Smart Universal Charger and Analyzer/ Condi-tioner Charges most NiMH, NiCad, Li-Ion and Li-polymer battery packs for digital cameras, two-way radios, camcorders, etc. Built-in circuitry with LCD status automatically senses battery voltage. Includes external 110V switching power supply and 12V cord with cigarette lighter • Discharge-only feature retains discharged capacity of battery pack on screen • Enhanced Li-Ion charging algorithm reduces charging time ..... **$89.99**

# VECTRONICS



**Electronic Kits** Each features a quality epoxy glass PC board with solder mask and screen-printed component key, manual and components. Choose from 40M receiver; crystal radio; 40M CW, AM radio and TV transmitters; 2M preamp; CW keyer; battery conditioner; FM broadcast SCA decoder; SSB audio filter; and tunable SSB/CW audio filter ..... **See Price Guide**

# Palomar Engineers

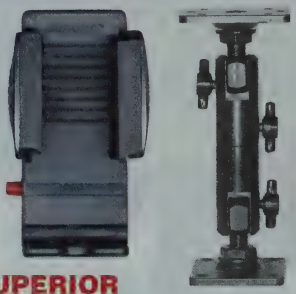



## VLF CONVERTERS

Receives and converts 10kHz-500kHz (VLF) to tune the 4MHz range. 2 models tune this low range on either a general coverage receiver or Ham band transceiver. Uses 9V battery. 2"h x 4.25"w x 5"d.

**VLF-A** Use with Ham band transceiver .... **$99.99**

**VLF-S** Use with general coverage receiver. **$99.99**



## SUPERIOR ACCESSORIES

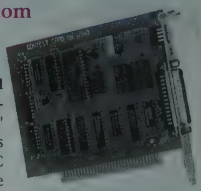
**18640** Universal Phone HT/GPS Holder *(left)* Keeps your phone, HT or GPS at your fingertips in your vehicle. Press the red button on side of cradle to open the rubber padded grips. Insert unit, squeeze grips and a ratcheting action adjusts to safely hold units 1.25 to 2.5" wide. Press the button again for quick release. 4.875" tall, attaches to a mount with screws provided..... **$14.99**

**HOU CPM-310** *(right)* 6" pedestal for convenient mounting of small mobile radios. Bolts securely to vehicle floor board or any convenient area. Adjustable to multiple viewing angles..... **$14.99**

# UM Unified Microsystems

ums@nconnect.com

## CONTEST CARD



**W9XT** Contest Card for IBM™ & PC Compatible A non-volatile 5" x 4.5" card that plugs into a single 8-bit PC slot and provides voice recording, playback and CW keying. Stores a total 60 seconds of voice audio divided into four 15 second messages. Samples at 8 kHz for high quality and natural sound. Does not use any disk space. For CW, the card frees up the PC port, and a relay allows operation with positive or negative keying. Works with all rigs and is compatible with most popular logging programs..... **$139.99**

**CCC-8** Contest Card Cable Semi-kit Wired and tested except for connectors to mic and transmitter. Includes 6 ft. shielded cable, CW keying line and record switch (8-pin) ..... **$44.99**

# AOR

**TDF-370** Multi-Media Terminal with DSP Listen to amazingly clear audio, transmit and receive PSK31 and RTTY, apply potent filtering and hear "weak ones" others may miss. Digital modes without a PC! • Use powerful DSP noise reduction and filtering, including Fast Fourier Transform. Auto-notch function • Enhance audio reception of SSB and CW • Monitor SSB and CW in derived "stereo" • Decode and display PSK31 or RTTY, on the LCD • Enhance transmitted audio with 8 channels of mic equalization • Digital voice recorder • 2 selectable front panel inputs • Six outputs: phone, stereo headphones (included) internal or external speaker, mic, PTT and COM • Requires 4 AAs, NiCads or NiMHs or regulated external 9-15 VDC • 3.3"h x 4.3"w x 6.2"d, 12.3 oz..... **$329.99**

**ARD-9800** Digital Voice & Image Interface Use conventional analog voice transceiver for digital voice communications, data and images while maintaining analog capabilities. No modifications, simply connect between mic and jack. Operates with transceiver in SSB mode. Automatic voice signal detector recognizes received signal as analog or digital, automatically switching to appropriate mode. Uses Open Digital Protocol, use is permitted on US amateur bands. Send and receive SSTV images in digital mode. Built-in video output connector allows external TV monitor viewing. Operate high speed data on HF band at 3600bps. Operates on 10-16VDC @ 200mA. 3.94"w x 1.26"h x 6.14"d..... **$549.99**

**HEAR IT Noise Eliminating Speaker** Incorporates new DSP technology. Fully adaptive to any change in background or man-made noise levels and effectively attenuates it up to –20dB. This dramatic drop in noise level results in clearer and less fatiguing audio that jumps out of the speaker.

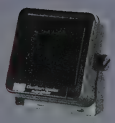
The *'Hear it'* has the capability to reduce noise equal to, or better than, DSP systems built into several popular radios. If the radio already has DSP, the *'Hear it'* will provide an additional benefit. If it doesn't have DSP, the *'Hear it'* will make a remarkable improvement in signal readability.

Offers 8 user-selectable noise cancelling levels, or cancelling can be switched off entirely. Plugging headphones or another speaker into the audio bypass jack mutes the speaker, but retains DSP noise reduction. • 2.5W of audio power • Requires 12–28VDC @ 500mA • 6.5' lead with 3.5mm mono plug • 4.5"w x 2.75"h x 2.25"d ..... **$159.99**

**IN LINE MODULE Hear It In-Line Module** Same audio enhancing features as the Hear It Speaker above. • 20dB average noise attenuation • 8 user-selectable noise attenuation levels • Input sensitivity control knob • 5W RMS audio input power • 2.5 W RMS, 8Ω audio output power • 3.5mm mono and RCA phono audio in/out jacks • Headphone jack • 12-24VDC, 500mA required • 3.5mm to 3.5mm audio and fused power leads supplied • 6.75"w x 3.325"h x 1.375"d, 1 lb ..... **$199.99**

## MFJ ENTERPRISES, INC.

### SPEAKERS



**281 ClearTone™ Communications Speaker** Features a 3" *Mylar* cone speaker mounted in a well-designed baffle. Improves speech intelligibility in the 600-4000Hz range while reducing undesirable noise, static & hum. 3.75" x 3"x 2.25" ..... **$12.99**

**382 Deluxe *ClearTone*™ 1W Amplified Speaker** Excellent for QRPers, base station HTs or rigs requiring more volume. A quality 3" speaker provides powerful audio – barely audible to high. All metal cabinet, rubber feet and vinyl clad cover. Uses 9V battery (not included) or 110V AC with optional adapter. Connect-ing cable included. 3.5"h x 1.75"w x 4.5"d ..... **$39.99**

### OTHER ACCESSORIES

**890 DX Beacon Monitor** Use as an aid to check band conditions worldwide in just three minutes. It requires no connection to a transceiver. The beacon monitor is a stand alone timing device using a microprocessor and built-in WWVB atomic clock to keep track of the beacon activation sequence. LED indicators positioned across a world map show which of the 18 beacons is active at any given time. Storing the beacon frequencies in transceiver memory allows quick switching as one listens for beacon transmissions. When a beacon is heard on any of the frequencies, that band is open to the location indicated by the corresponding LED. • Requires 12VDC or 110VAC with the optional MFJ-1312D • 6.75"w x 5.25"h x 3"d ..... **$99.99**

**616 Speech Intelligibility Enhancer™** Provides approximately 20dB audio frequency boost or cut to four overlapping octave ranges centered at 300, 600, 1200 and 2400Hz. Improves ability to hear and understand SSB, FM, AM, CW QSOs by adjusting response levels to match hearing response for best clarity, then equalizing perceived loudness to each ear. Built-in dual, 2.5W, audio amps; front panel jack; speaker on/off switch; 2 selectable transceiver in-puts; bypass switch. Use with rig or PA system. 10"w x 2.5"h x 6"d, requires 12 VDC..... **$159.99**

**624D Deluxe Hybrid Phone Patch** Interfaces a phone line with a rig for running phone patches. Jumper selectable for all Kenwood, Icom, Yaesu and Alinco transceivers using an 8-pin microphone connector. Adapts to work with virtually any rig. Uses 12VDC, 9V battery or 110VAC with AC adapter. 8"x 2"h x 6" ..... **$119.99**

**762 Step Attenuator** Provides push-button selection of up to 81dB attenuation in 1dB steps • Excellent performance up to 170 MHz, usable to 500 MHz • 50Ω, 250 mW maximum input • BNC connectors with BNC-to-SO-239 adapters included • All metal cabinet, 6.5"w x 2.5"h x 1.5"d . **$69.99**

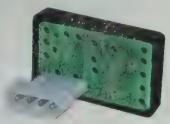
## AES

**PCL-1 Pro Communications Loud-Speaker** Ideal for amateur radios, scanners, shortwave, PCs, paging, or surround sound. • Uses European-built, 4" throw, 8Ω, 20W-rated contoured driver • Frequency response is 300Hz-5000Hz, ±3dB, optimized for max. speech intelligibility • Full magnetic shielding permits operation next to PCs, monitors or any other sensitive electronic equipment • Rugged, water resistant enclosure allows indoor or outdoor use • Powder-coated, perforated, metal grille protects speaker from damage or abuse • Complete with adjustable, metal mounting bracket for easy fixed or mobile use • Fitted with standard 3.5mm "mini-plug" on a 5.5', strain relieved cord • 5"w x 4.3"h x 3.2"d, 1.7 lbs..... **$19.99**

**OAK ON AIR** or **BLACK ON AIR Illuminated Station Sign** When actuated, the nearly 2" letters shine via six, noise free, replaceable, incandescent lamps. When not actuated, the letters are nearly invisible. Internal printed wiring board contains electronic "Smart Sense" circuit to remotely trigger the lamps on transmit by shorting or applying 10-14V to the circuit. Solid oak cabinet • Available in natural oak or black finish • Works with any radio • 13.8 VDC operation • AC wall cube power supply • RCA cord and diode adapter • Recessed rear connectors for flush wall mount ..... ea. **$69.99**

## The BetterRF Company

**I-MATE Accessory for ICOM PRO Series** Provides external selection of pre-recorded voice and keyed messages for the 756PROII and keyed CW messages for the 746PRO. Eliminates shifting the display from operating mode to memory select mode to transmit pre-recorded messages. Four buttons transmit associated message. Provides pulsed sine-wave oscillator for safe tuner and amplifier tuning. Has alternate audio input for second mic. Plugs into transceiver mic jack. Receives power from the available voltage..... **$74.99**



**706 TUNE CONT Tune up Control for IC-706/718** Plugs into Molex connector on rear of radio. Converts radio's TUNER/CALL button function to TUNE MODE which limits radio 8-10W RF output and produces a sidetone through the speaker. When finished, it reverts back to previous mode and power. No need to switch to AM or RTTY or hold down the PTT switch. Works 160-6M, except not 6M with original IC-706..... **$32.99**

## WEST MOUNTAIN RADIO

### RIGrunner

The most convenient and safest way to connect to a 12VDC source and distribute it to all equipment. A power panel that uses the excellent Anderson PowerPole® connectors. Perfect for shack or mobile. Eliminate those wall warts! • All models are conservatively rated at 40 amps total with any outlet good to 40 amps • Anderson PowerPole® crimp or solder connectors provide a safe secure, hot connect, polarized, color keyed, genderless connector system • Conforms to ARES/RACES, RSGB, ARRL recommendation for high current 12VDC connectors • No messy binding posts, frayed wire connections, black tape or short circuits • Each outlet is individually fused with automotive ATC/ATO fuses • Blown fuse LED shows status • Shipped with appropriate fuses installed.

**RR/4010S/C** **10 Outlets** One "always on" outlet and 9 auto or manually controlled switched outlets. An FET On/Off system controls entire station with the power button on your rig. Quick status precision LED and audio voltage monitor..... **$119.99**

**RR/4012/C** **Intelligent DC Power Panel** Neatly distributes 12V, up to 40A, from power supply or battery to transceivers and accessories. Perfect for home and mobile applications. 12V input connection fused at 40A and 12 pair of outlets supplied with assortment of standard automotive fuses. LED "open" indicators on every fuse. LED voltage monitor indicates normal voltage, LEDs and audio alert for over/undervoltage conditions. 6' DC cable and 24 *Anderson Powerpole* crimp-solder connectors. 11.8"w x 2.7"h x 1"d..... **$112.99**

**RR/4008/C** **8 Outlets** Quick status precision LED and audio alert voltage monitor. For small or mobile installations or as expansion unit. 5.75"w x 2.7"h x 1"d ..... **$92.99**

**RR/4005/C** **5 Outlets** DC power panel, for small or mobile installations or as expansion unit 5.75"w x 2.7"h x 1"d ..... **$59.99**

**CR/TOOL** **Crimper/Wire Cutter** Handy for installing *RIGrunner* connectors. Hardened steel, 8" for high leverage, comfortable plastic grip... **$9.99**

**C30/PK/12** 24, 30A powerpole conns ..... **$10.99**

**Look For This**

**NEW**

**& Check Out AES' Latest Additions.**

## WAHL® ELECTRONICS ISO-TIP

**7740** **Cordless Soldering Iron** Provides tip performance up to 50 watts and over 700°. Contains premium NiCad rechargeable battery for high-rate charging; a partially discharged unit will return to full capacity within 1 to 2 hours, with a complete recharge in 3 to 4.5 hours. Replaceable battery and worklight. Comes with recharging stand, fine and heavy tips ..... **$47.99**

**7971** **SolderPro 50** Usable as a soldering iron, torch, hot knife and heat tool using optional interchangeable tips • Heats up from to 410°F to 750°F within 10 seconds • Runs up to 30 minutes • No electrical current • Easy refill, powered by standard cigarette lighter butane (not included)..... **$19.99**

**7974** **SolderPro 70** Usable as a portable soldering iron, torch, hot knife and heat tool using optional interchangeable tips • Heats up from 410°F to 750°F within 10 seconds • Runs up to 120 minutes • No electrical current • Easy refill, powered by standard lighter butane (not included) ..... **$27.99**

**82-5000-0004** **Rosin Core Solder** • 60% tin, 40% lead • 040" diameter • 374° F melting temperature • Non-corrosive • For all electrical applications • 0.5oz. in handy dispensing tube ..... **$1.99**

## VELLEMAN

**VTTS** **Multi-Purpose Toolset** A quality toolset for the electronic engineer and hobbyist • 4.75" universal handle, 3" extension, 9 different bits, hex adapter, and (4) 1/4" drive sockets • Bits: (Slotted) 1/8, 3/16, 1/4"; (Phillips) #1, #2, #3; (Star) T-15, T-20, T-25 • 4, 5, 6 and 8mm 1/4" drive sockets • 6 precision screwdrivers (4 slotted, 2 Phillips) • 4.5" mini diagonal plier • 5" mini long nose plier • Tweezers • Plastic carry box, 6" x 4" x 2"... **$9.99**

## Weller®

### SOLDER EQUIPMENT

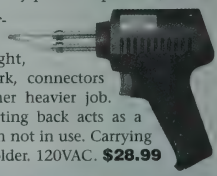
**SP-23LK** **25W Soldering Iron Kit** *(middle right)* Ideal for hobbies, kits, radios and delicate electronic work. "On" Indicator light. Supplied with three 750° tips, handy soldering tool and solder. Size: 8-1/4 in. long, 1-3/4 oz., Two-wire 6 ft. cord **$17.99**

**W-60P** **60W Pencil-Type Soldering Iron** *(left)* For most circuit work. Supplied with 0.0625" 700°F screwdriver tip. 7.5", 2.5 oz., 6' cord, 120V **$64.99**

**WP-25** **25W Pencil-Type Soldering Iron** For work on delicate electronics. 750°F tip temperature. 7.875" long, 1.75 oz., 4' cord, 120V AC.... **$34.99**

**WSTA3** **Pyropen® Butane Soldering Iron** *(right w/case)* Light-weight and completely portable. Operates up to three hours on a charge of regular cigarette lighter butane (not included). Soldering temperature control is adjustable from 392° to 932°F, with a very fast heat-up time. It's ready to solder in just 30-seconds! Supplied with tips for soldering, hot air (1202°F), and brazing..... **$99.99**

**WST2** **Pyropen® Jr.** *(middle left)* Portable, mini, butane-powered soldering iron. Recharges in seconds from a cigarette lighter butane (not included). Soldering temperature is adjustable from 392° to 842°F. Also, hot blow feature (806°F) and torch feature (2372°F). Has handy pocket clip..... **$89.99**



**7200PK** **Multi-purpose Soldering Gun** Compact, lightweight, 75W for bigger work, connectors and almost any other heavier job. The flat, self-supporting back acts as a convenient rest when not in use. Carrying case, extra tip and solder. 120VAC. **$28.99**

**WTCPT** **42W Temperature-Controlled Soldering Station** *(left)* Ferro-magnetic sensor in tip controls temperature (700°F), no adjustments. Closed loop method protects components. ESD safe. Power unit, soldering iron and stand with sponge. 3-wire 4' cord. 4.5" x 5.94" x 3.63", 3.9 lbs..... **$119.99**

**WESD51** **50W Adjustable Soldering Station** Quick heat-up, rapid temperature recovery. Microprocessor-controlled, digital LED display shows setting and tip temperature (350°F to 850°F). Auto power off after 90 minutes of inactivity. ESD safe. Power unit, soldering iron with stand and sponge. 3-wire 4' cord. 5.9" x 4.5" x 3.6", 3.93 lbs **$149.99**

**NCS-3230 Multi-RX Receive Console** The ultimate in RX audio control from up to 6 receivers! Connect radios, then choose which to monitor, where the audio will appear in the audio field (two modes), and record any or all audio utilizing manual or VOX activation. External recorder required. LEDs indicate which radio(s) are selected. • Built-in stereo amp • Front panel volume and balance controls • "Mute All" button • Use headphones/set or speakers or both • LEDs identify active radios • 12 VDC required • 8.5"w x 3.3"h x 6.6"d ..... **$349.99**

**NCS-1514 Wall Power Supply** Designed for use with the 3230 above..... **$24.99**

**NCS-P2PH35-A Cable Kit** 6 cables, 6' long, for connecting receivers, transceivers or scanners to the 3230. RCA phono connector (to 3230) on one end and 3.5mm phone plug on the other..... **$42.99**

**NCS-MRX2MS-A Cable Interface Kit** For interfacing the 3230 to the 3240. Feeds selected audio from the 3230 to speakers or headphones/set connected to the 3240. Selective muting ..... **$49.99**

**NCS-3240 The Multi-Switcher** A "mini-console" that switches all equipment (mic, headset, keyer, foot-switch, etc) to any of four radios using LED-lighted push buttons. Switch between headset, desk/hand mic, TNC, phone patch, sound card, etc. Matches impedance, audio level and pin-out of nearly any mic to virtually any radio. Switches foot/hand-switch and CW keyer to selected radio. Switches radios receive to external speaker or headphones. Requires 12VDC. 8.5"w x 3.3" x 6.2"d ..... **$299.99**

**NCS-1512 Wall Power Supply** For the 3240. 12 VDC output @ 300mA ..... **$12.99**

**NCS-LOZNC Unterminated Cable** Requires mic connector installation. Other end is an 8-pin DIN male connector to interface with 3240..... **$17.99**

**NCS-3400 Multi-Patch Passive Audio Panel** Organizes audio and other signal distribution in a shack. Makes it easy to add or reconfigure equipment. Consists of 5 rows by 10 columns of 3 types of connectors. Each row has 6 RCA phono jacks, 2 3.5mm phone jacks, and 2 standard phone jacks. 6 modular jacks for telephones and phone accessories. Slide switch disconnects 3.5mm and 6.4mm jacks from the 6 RCA jacks allowing each row segment to operate independently. 11.75"w x 4.75"h x 2"d (including mounting flanges)..... **$129.99**

*See NCS in the Price Guide for Radio Interface Cables for Icom, Kenwood & Yaesu radios.*

## BOUNTY HUNTER METAL DETECTORS

### METAL DETECTORS

**LAND STAR** boasts more features than other costly detectors. Includes a Bounty D-Tech™ open-face search coil, advanced microprocessor electronics, 3-tone discrimination and Ground Trac® retune. A multi-function LCD and touchpad control make it equally at home relic hunting, coin shooting, or gold prospecting. Set the notch to reject items, or let "Auto Notch" detect coins 12" deep..... **$299.99**

**FAST TRACKER** Newcomers to treasure hunting should not be shortchanged when it comes to features – or quality. That's why there's the Fast Tracker™. It offers 7" Bounty D-Tech™ search coil (adjustable angle), dual-tone audio discrimination, motion all-metals mode, auto ground balance, low-battery alert, built-in speaker, headphone jack, and lightweight S-rod comfort-grip handle with stand ..... **$99.99**

**SHARP SHOOT II** Treasures missed by generations won't escape the Sharp Shooter II™. Digital LCD, touchpad control, and interchangeable Bounty D-Tech™ search coil. Also features 3-tone audio discrimination, selectable auto/manual notch level, auto ground balance, battery indicator, S-rod comfort-grip handle with stand, headphone jack, and built-in speaker ..... **$249.99**

**TRACKER IV** The optimum combination of power, ease-of-use, affordability, and big finds – every time: the Tracker IV™. Built with a fully-submersible 8" Bounty D-Tech™ search coil, sensitivity meter, built-in speaker, headphone jack and battery indicator. Tracker IV features 3 different user-adjustable operating modes: Motion All-Metals Mode, Full Discrimination, and Tone Discrimination ..... **$129.99**

**LAND RANGER** Offers high-end features for the serious detectorist. Designed for every metal detecting application at a pro level. Touchpads keep all modes at quick and easy access while the LCD emits a constant reference source maximizing every possibility for finding treasure. It features an 8" waterproof, interchangeable search coil and SmartTrac® ground control..... **$399.99**

**QUICK DRAW II** The Bounty Hunter Quick Draw II™ metal detector packs powerful features, like an advanced Zilog Z-86 circuit, for superior discrimination and control. Also includes waterproof Bounty D-Tech™ search coil, 3 levels of iron discrimination, both target ID and depth readout, sensitivity control, full discrimination, auto and variable notch, and low battery indicator. Detects up to 10" deep – larger objects up to 5'..... **$199.99**

**TIME RANGER** Recover more relics and valuables from the past then ever before. The Time Ranger's powerful circuitry and smooth operation combine to deliver absolute performance. The innovative Sniff-Mode can be used in specialized applications when rejection/acceptance of a particular object is desired ..... **$499.99**

### BOUNTY HUNTER ACCESSORIES

**CARRY BAG** Padded Carrying Case Protects metal detectors from the elements, in storage and transit. Rugged, double-stitched, nylon construction. Includes outside zip-pocket..... **$29.99**

**10" COIL** 10-inch Magnum Coil Adds extra depth for relic and cache hunting..... **$49.99**

## iBOTZ INNOVATIVE ROBOT KITS

Age 8 and up. Fun and educational! By assembling the kits, children and young adults learn some fundamentals of robotics and electronics. Assembly requires cutting and long-nose pliers, small hammer and screwdriver, and one 9V and 2 AA batteries.

**MR-1001 SoundTracker** A lively robot with audio sound sensor that causes it to react and alter direction of movement. 5"l x 3.75"h x 5.5"w .... **$29.99**

**MR-1002 Antoid** Has six legs that make him quite maneuverable. Uses infrared light source and sensor to alter direction. 6"l x 6"h x 7"w..... **$49.99**

**ICC NITELOGGER II Automatic Tape Recorder Activator** Takes audio output from a radio or scanner and provides an impedance match and voice activated relay operation for a tape recorder. When audio is present, the relay circuit, with adjustable drop out delay, automatically activates the recorder for the duration of the signal, then releases. Simple connection with supplied cables to radio's external jack, and tape recorder remote and mic inputs. AC adapter supplied. 4.37"w x 3.25"h x 2"d .... **$69.99**

# YAESU

**FTV-1000** 200W 50MHz Transverter for the FT-1000MP MK V Utilizes the same high-performance power MOS FET transistors as the MK V. PA stage operates at 30VDC, provided by the MK V power supply. Output devices, capable of 300W PEP, are run well below their maximum ratings for high reliability. The thermostatically-controlled cross-flow cooling fan keeps operation cool. Exclusive Class-A bias capability is now extended to the FTV-1000 50MHz operation providing the cleanest SSB signal on the band! It also features a high dynamic range receiver front end, utilizing a high-intercept design with JFETs in a double balanced mixer. Driving the mixer is a low-noise-figure MOS FET preamp, two gain selections available. For local, select IPO, bypassing preamp for direct feed to the mixer. 12dB attenuator available when working with extremely strong local signals. Rocker switches control all functions, with LED indicators..... **$899.99**

**HRI-100** Amateur Radio Internet Linking Kit Uses DTMF signalling to connect HTs or Mobile transceivers to the Internet, greatly expanding the coverage area. A repeater-based system, ideal for emergency communications, "sister-city" link-ups, or accessing repeaters world-wide. Includes CD (including manual), power cable, RS-232C/DB-9 data cable, 8-pin mini-DIN plug data cable, 2 sound card in/out cables and WIRES"II user/server agreement..... **$149.99**

*More WIRES"II wide-coverage internet repeater enhancement system information can be found at www.vxstd.com/en/wiresinfo.en/*

**VXR-7000VA** 50W 2M FM Desktop Repeater A long list of built in features, sets the standard for mid-power, continuous duty base station and repeater applications. Whether used as a base station, with its attractive housing and user-friendly controls, or as remote repeater in the most demanding environments, the VXR-7000VA will provide years of reliable service. • 136-150MHz • 16 channel synthesized • 10-50W output, adjustable (100% duty) • 12.5/25kHz bandwidth • Programmable 16 tones/codes • ANI/ENI I.D. display* • CW transmitter I.D.* • Time-out, hang and guard* timers • BCLO, BTLO • Selectable repeater or base transceiver mode • Selectable local or remote mode • 115/230 VAC, automatic DC supply back-up • 4.5"h x 12.8"w x 15.4"d, 22 lbs..... **$1269.99**

** Dealer programmed feature*

# GROTHE

## SIRENS & HORNS

**VS-2** Emergency Vehicle Siren Designed for the volunteer fireman, a quality-built wail-yelp alarm that delivers big sound performance (120dBa sound level at 4 ft.). Frequency range is 600 to 1200Hz. It is pre-wired with a 3-position switch (Yelp-Off-Wail). High efficiency waterproof horn speaker. Also includes 10 ft. cable, mounting bracket and hardware. 12VDC @ 1.5A, 2.7 lbs..... **$89.99**

**VS-2LS** Siren–Light Combo A one-unit siren and yelp alarm, revolving halogen light and window mount. Fits all cars, slides on top of car window and plugs into cigarette lighter. The power plug contains an "on" LED and three position switch to select Yelp, Off or Wail modes. 12 VDC @ 5A. Specify AMBER, BLUE or RED light..... ea. **$299.99**

**VS-3** Vehicle P/A and Airhorn w/Rebroadcast A big, powerful airhorn sound with 4 different sounds (no siren) calls attention to your vehicle. Delivers 120dBa level at 4 ft. Locking down the microphone with the supplied rubber band, you can monitor sound from a mobile rig, scanner, etc. via the speaker outside. Includes horn speaker, microphone, electronic center, 10 ft. cable, mounting bracket and hardware. 12 VDC @ 1.5A..... **$129.99**

**VS-4** P/A Emergency Vehicle Siren Contains P/A, rebroadcast, wail, yelp, pulse and airhorn. P/A override features, plus volume control of all siren modes. Restricts output when operating in people places. Includes horn speaker, microphone, electronic center (3 x 3.5 x 2 in.), 10 ft. cable, mounting bracket and hardware. 12V DC @ 1.5A.... **$139.99**

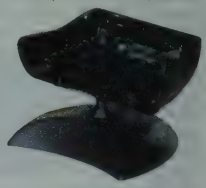
We accept I.M.P.A.C.® Government Credit Cards

# artsci

**REPEATER MAP** Book 11th Edition The perfect travel companion. Contains hundreds upon hundreds of open repeater locations throughout the U.S., Canada and Mexico. These detailed maps show all highways and major cities in each state. Grid squares on every U.S. map and NOAA weather frequencies for the U.S..... **$14.99**

# KENWOOD

**KTC-H2A1** 100 Streams Of Satellite Radio Every minute of every day, SIRIUS beams programming to three state-of-the-art satellites moving high above the earth in figure eight, geo-synchronous orbits. The programming is then broadcast back down to every inch of the continental U.S. to your radio wherever you go with no signal fades. • 60 streams 100% commercial-free music • 40 streams of sports, news, and entertainment from CNBC, ESPN, NPR, Radio Disney, E! Entertainment, Discovery Channel and more • Over a half million songs streamed into your sound system every month (pop, rock, country, hip-hop, R&B, dance, jazz/standards, classical) • Live, in-studio performances and interviews • Stream jockey musicians, genre experts, and music fanatics who are knowledgeable about the musicians and songs they play • Plug & Play - for car or home with optional docking stations • Subscription required • 5"w x 3.5"h x 4.5"d, 14 oz..... **$99.99**



**KPA-H2H** Home Docking Kit Home antenna, power supply, remote control, RCA cable.. **$69.99**

**KPA-H2C** Docking Kit for Car Magnet mount antenna, cigarette and cassette adapters..... **$69.99**

**KCA-FM** Wireless FM Modulator Required if Car, Boat, or RV stereo does not have a cassette deck or auxillary input..... **$39.99**

*1-888-539-SIRUS or www.sirius.com for more info.*

# TIMEWAVE

TECHNOLOGY INC.

**HSC-99** HamHub™ Station Controller Integrated interface to connect and control mic, headset, footswitch, TNC, rotor, transceiver and computer. • Provides isolation of critical audio circuits and opto-isolation of RS-232 and control in/outputs • Both sound card and TNC in/outputs are transformer isolated to eliminate ground-loops • Uses single USB connection (computer) and provides 3 opto-isolated RS-232 serial COM ports for TNC, rotor and rig control (serial output configureable to match some older TTL rigs) • Full-time audio multi-level indicators on both in/output circuits match audio levels between equipment • Internal high-speed micro-controller implements and supervises functions making them transparent to the user • Soft/hardware controls interlock - choose which overrides the other • Operates with most soundcard and software control programs..... **$349.99**


Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

# GARMIN®

**FORERUNNR 201** **GPS/Personal Training Device** Designed for athletes as well as the recreational walker or runner. It offers an easy-to-read display, adjustable wristband and an integrated GPS sensor to calculate speed, distance and pace. The Virtual Partner™ feature lets you input time, distance and pace goals, and then shows if you're ahead or lagging. With the GPS navigation capabilities, mark specific locations, look up and navigate to these points, retrace steps or reverse a normal route for variety in routine. Garmin provides performance-tracking software to analyze athletic activity over time. Software will be available as a free download from Garmin's web site. Data can be transferred to a PC, for plotting and analyzing performance in order to make changes in training regimen. Includes wristband, A/C charger with PC interface, manual, and quick start guide. 3.3"w x 1.7"h x 0.6"d, 2.75 oz ..... **$149.99**

# MOTOROLA

## FRS/GMRS RADIOS

**T-5950-2/AA** 22 Channel GMRS/FRS Rugged Motorola quality with clear communications whether skiing or hiking rough terrain. Built to withstand harsh environments and provide extra communications range (up to five miles) depending on terrain and conditions. • 1W maximum transmit power • 7 GMRS/FRS 1W channels • 7 FRS 0.5W channels • 8 GMRS 1W channels • 8 NOAA weather channels • 99 codes, 10 audible call tones • Hands-free VOX • Multiple scanning functions • VibraCall® alert • Keypad lock • Backlit display • Removable swivel belt clip..... pair **$79.99**

**T-4500-2** 22 Channel GMRS/ FRS Offers the ultimate in small size GMRS radios, compares to the smallest cell phones or pagers. Weather resistant design. Up to 2-mile range • 500mW maximum transmit power • 7 GMRS/FRS channels • 7 FRS channels • 8 GMRS channels • Scanning • Audible call tone talk confirmation tone • Audible low battery alert • Uses AAA alkalines..... pair **$29.99**

# Remote-Controlled Electronics

## Invading by Land, Sea and Air!

AES® is introducing remote-controlled vehicles into our stock. These new products are sure to provide you and your family hours of enjoyment. Line includes rockets and remote-controlled airplanes, boats, monster trucks and race cars.

**Call or go online for available models and complete details.**

## Lightwave

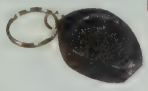
Modern flashlights using LED technology. Lights an area like no other flashlight! 25-day batteries (with diminishing brightness) • 11-year (typical), solid-state LED's • Bright, diffused white light • Waterproof to 2' • Shock-proof, high impact composite case with lanyard and hook • 3 year warranty, including LEDs

**LW-2000** *(left)* 3 AA alkaline batteries (included) power 4 LEDs. 7.75" long, 1.25" diameter ..... **$29.99**

**LW-3000** Similar to LW4000, but smaller. 3 C alkalines power 7 LEDs 8.75" long, 1.625" dia... **$49.99**

**LW-4000** *(right pic & end view at left)* 3 D alkalines power 10 LEDs. 10.75" long, 2" diameter . **$59.99**

**LW-HT** Illuminator™ Head Torch 1"-wide adjustable strapping secures light to the head. Up/down adjustable. 4 high-intensity LEDs powered by 3 AA batteries (not included) provide super-bright light visible for over one mile, over 330 hours ..... **$39.99**



**LW-PB** PocketBright™ Flashlight Includes key ring, neck lanyard and velcro patches. Single, high-intensity LED, powered by 2 included Lithium batteries, provides over 50 hours of light that can be seen across a full-sized room ..... **$19.99**

## UHF CONNECTORS

General purpose and, with the use of optional reducing adapters, accommodate a wide range of applications. Rated for up to 300 MHz. Impedance is non-constant and voltage rating is 500V peak.

**AMPHENOL**
**83-1SP-1050** (PL-259) Male coax plug
**83-1SP** (PL-259) Silver-plated coax plug

**VAN GORDEN**
**SILVER PLATED** (PL-259) Teflon

**AMPHENOL**
**83-878** UHF single hole bulk-head receptacle

**AMPHENOL**
**83-1R** (SO-239) UHF panel receptacle
**83-1H** (UG-106) Hood for 83-1R for inline use

**AMPHENOL PL-259 REDUCING ADAPTERS**
**83-185** For RG-58
**83-168** For RG-59/8X

## TYPE N CONNECTORS

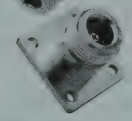
Constant 50Ω impedance, excellent performance up to 11 GHz and 1,500V peak. Internal gaskets provide better weather resistance than the standard UHF type.

**AMPHENOL**
**82-61** Male for RG-8
**82-202-1006** Male for 8214/9913/9913F
**34025** Male for RG-58

**AIM**
**26-8027** Male for RG-8X

**VAN GORDEN**
**N CONNECTOR** Male EZ-install type for 9913/8214

**AMPHENOL**
**82-209** Female in-line for RG-8

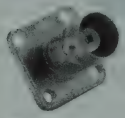


**AMPHENOL**
**82-24** Type-N panel receptacle
**AIM**
**26-8011** Type-N chassis mount

## BNC CONNECTORS

Miniature, lightweight connectors for RG-58/59 type coax. Quick disconnect bayonet coupling, small size and low cost. Rated for up to 4 GHz. Impedance is 50Ω nominal. Voltage rating is 500V peak.

**AMPHENOL**
**31-002** Male for RG-58
**31-012** Male for RG-59/8X



**AIM**
**27-8450** 4-screw chassis mount, screws not included

**AIM**
**27-8470** Dual chassis mount

**AIM**
**27-8460** 3/8" hole chassis mount
**AMPHENOL**
**31-221** Female chassis socket

## MICROPHONE AND DIN CONNECTORS

**VANCO**
**CBC-8P** Panel mount 8-pin male

**KENWOOD**
**7-PIN DIN** plug
**8-PIN DIN** plug
**13-PIN DIN** plug

**PHILMORE**
**61-608B** 8-pin female mic plug

**VANCO**
**CBC-4** 4-pin female mic plug
**CBC-5** 5-pin female mic plug
**CBC-6** 6-pin female mic plug

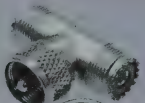
**HOUSE OF DEALS**
**AP-115** 1/4" metal stereo plug

**HOUSE OF DEALS**
**AP-135** 3.5mm stereo mini phone

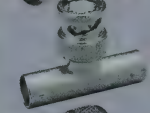
**DALBANI**
**15-0293** 3.5mm mono plug

*Prices for all items on this page can be found under CONNECTORS in the Price Guide.*

## COAXIAL ADAPTERS

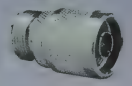


**AMPHENOL**
**83-1T** UHF T-connector adapter (M-358)



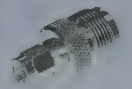
**AIM**
**27-8140** BNC T (2 fem., 1 male)

**AMPHENOL**
**83-877** UHF double male adapter



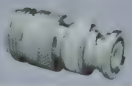
**AMPHENOL**
**4400** SO-239 to Type-N male
**AIM**
**26-8015** Type-N male to SO-239

**AMPHENOL**
**31-28** BNC female to PL-259
**AIM**
**27-8120** BNC female to PL-259

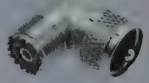


**HOUSE OF DEALS**
**SMA-872** SO-239 to SMA adapter

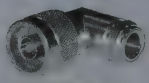
**AIM**
**27-8130** BNC double male
**AMPHENOL**
**2900** SO-239 to BNC male adapter



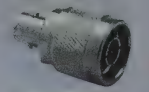
**AIM**
**25-7420** BNC male to SO-239
**26-8017** BNC male to N female



**AMPHENOL**
**83-1AP** UHF right angle (UG-146)



**AMPHENOL**
**82-64** Type-N right angle adapter



**AIM**
**26-8016** BNC female to N male

**AIM**
**25-7365** BNC female to SO-239

**AIM**
**29-4140** SO-239 to mini PL-259

**AMPHENOL**
**83-1J** UHF double female (PL-258)

**AIM**
**29-3855** BNC female to SMA male

**AIM**
**25-7351** Chassis mt SO-239 double female

**AIM**
**26-8010** Type-N double female

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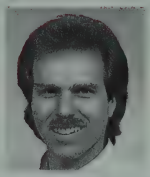
RICHARD K9RWE

GARY L. KA9YTB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JIM WJ9P

MIKE N9LBQ
Nat'l Sales Manager

PAUL W9KHO

RAY W9KHH

TOM W9TJP

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BEN AA8AH
Store Manager

BRUCE KE8TI

KIPP N2JAF

PHILLIP KB8GA

ROD WN8R

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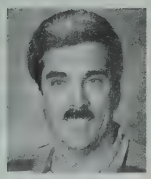
JIM WD6FYX

JULIO KP4UZ
Hablo español
Ich spreche Deutsch
Je parlais francais

LUKE KK7XX
Store Manager

SQUEAK AD7K


TOM W7TAA

## ORLANDO, FL 407-894-3238 • 1-800-327-1917

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EDDIE KD4RAZ
Hablo español

ERNIE K1HO

GRANT K4IQW
Store Manager

GEORGE K2WO

RODRIGO TI2WD
Hablo español

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Salesperson's Name _____

Account No. _____ Date _____

Name _____ Call _____

Address _____

City/State _____ Zip _____

E-Mail Address: _____ Fax: _____

Phone No. (Home) ( ) _____ Hours: _____

Phone No. (Work) ( ) _____ Hours: _____

**SHIP TO** *(If other than at left):*

_____

_____

_____

_____

**IF YOU HAVE MOVED** since your last order, please show your old address:

_____

_____

| QTY. | MANUFACTURER | PART OR MODEL # • DESCRIPTION | PRICE EACH | TOTAL |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

**TOTAL AMOUNT OF ORDER** $

**LINE 1** — TRADE-IN Allowance (if any) *Enclose mail quotation or reference telephone quote & list Trade-in items on line provided below.*

**IMPORTANT! Persons having a Trade-in must check one of the following:** (Also, see more important information on previous page and on Policies page.)

- ❑ Hold this order until you receive and approve my trade-in.
- ❑ Payment in-full enclosed. Refund allowance when my trade-in is received and approved.
- ❑ Charge the FULL AMOUNT of my order to my Charge Card and Credit my trade-in allowance when my trade-in is received and approved.

-

**LINE 2** — Shipping Charges We ship via **best ground method** at *flat-rate* shown on next page, except to APO/FPO made via Priority Mail.
*For Faster Service* select one of the following: (These methods are not flat-rated so allow for increased shipping charges - no flat-rate credit.)
❒ UPS Next Day Air (Red) ❒ 2nd Day Air (Blue) ❒ 3-Day Select (Orange) ❒ Federal Express ❒ RPS ❒ Express Mail ❒ Priority Mail

+ *Shipping Charges are taxable in WI, FL, NV & OH*

**LINE 3** — Sales Tax: ❑ WI- 5.6%, ❑ FL- 6.5%, ❑ NV- 7.5%, ❑ OH- 6.75% *For Ohio & Nevada figure tax before subtracting trade-in allowance* +

**LINE 4** — Credits: AES Refund Checks, Gift Certificates or Manufacturer's Coupons (if any) -

**CREDIT CARD INFORMATION**

We accept I.M.P.A.C.® Government Credit Cards

Account Number

Cardholder's Name CARD EXPIRES

Cardholder's Signature Date

**LINE 5** — Balance $

**LINE 6** — Due AES from previous order (if any) +

**TOTAL AMOUNT DUE**

Choose payment method from below: (Fill in information at right, if applicable)
❒ Bank transfer ❒ Certified check ❒ Personal check ❒ Money order
DO NOT MAIL CURRENCY. Send bank check or money order. Personal check may delay shipping until it clears our bank. Attach remittance to top of order blank.
❒ Credit card (VISA, MasterCard, Discover, American Express, IMPAC)
❒ COD $7.00 fee per package. *Money Order or Certified Check Only.*
*MINIMUM $20.00 COD ORDER – NO AIR OR PARCEL POST COD's*

$

**AMOUNT ENCLOSED** -

**BALANCE DUE (IF ANY)** $

**BANK TRANSFER INFORMATION**

M&I Marshall & Ilsley Bank, Milwaukee, WI. ABA #075000051. Credit to account #00244-15017 in the name of Amateur Electronic Supply. Make sure to include the name under which the order was submitted.

Cut along dotted line or make Photocopy

**COD ORDERS** Minimum COD order is $20.00, shipment via UPS Ground only (no air or parcel post). The flat-rate, plus a $7.00 COD fee per package applies. Payment by money order or certified check, only.

**DAMAGED ITEMS** If you discover a damaged shipment, **THE CARRIER SHOULD BE NOTIFIED IMMEDIATELY**. The merchandise should not be returned to us until notified to do so by the carrier. All packaging materials must be retained including styrofoam peanuts, inner and outer cartons, labeling, etc. for inspection by the carrier or the claim may be denied. With shipments properly packaged (as all our shipments are), the ultimate responsibility for delivery in good condition rests with the carrier.

**DEFECTIVE ITEMS** Defective items should be returned to AES or the manufacturer for warranty repair or replacement, at our discretion. After processing, we will return it via ground method, at our expense in the 48 contiguous states. If you receive defective equipment, call our Customer Service Department at 414-358-4087 for instructions. Canadians please see "*Canadians Note:*" under TRADE-INS.

**INTERNET ORDERS** The customer may order products directly on our web site via our internet order form. If the customer does not have access to the web, but has an e-mail account, the customer may e-mail his/her order making sure the following information is included: full name, call sign (not required to order), phone number, billing address, shipping address, item(s) to be purchased (model number and manufacturer) and method of payment. If paying by credit card, we need the card number and expiration date.

**PAYMENT** Accepted forms of payment are electronic bank transfer, certified check, personal check, money order, credit card (VISA, MasterCard, Discover, American Express, IMPAC), or COD. The customer's choices of payment methods may depend on amount of purchase or destination of shipment.

**PRICING** We will pass on decreases in pricing to our customers whenever possible. Due to foreign currency fluctuations, promotions, manufacturers' specials, etc.; prices may vary, so be sure to confirm prices when ordering. All prices and specifications are subject to change without notice. **AMATEUR ELECTRONIC SUPPLY®** is not responsible for typographical errors or omissions.

**REFUNDS** Amounts under $5.00 are not refunded unless requested in writing to the Milwaukee headquarters within 12 months.

**RETURNS** In order to maintain the lowest possible prices, we do not offer a *free trial* or *evaluation period* on new equipment. If permitted, an **Authorized** return of merchandise for credit (it must be like new with all original packaging) will be subject to a **Minimum 15% Restocking Fee**. The item must be returned within **10 days** after receipt, prepaid, with a copy of the purchase invoice and a letter describing the reason for the return. No returns on antennas, towers, cable, items drop-shipped from the manufacturer, audio or video tapes, kits, books, or computer software. Canadians please see "*Canadians Note:*" under TRADE-INS.

**PACKING FOR SERVICE AND/OR RETURN** When returning heavy, delicate, and expensive equipment, it must be carefully packed in order to avoid damage caused by normal transportation dynamics. When contents of packages are damaged, claims will be paid only if the carton and packing meet standards set in the International Safe Transit Association Procedure 1 and 1-A. These standards simply state that cartons and packing should provide reasonable protection to their contents. Ideally, contents should be suspended in the center of the carton by the packing material, no less than three inches on all sides for heavy items. For items heavier than 20 lbs., 3" of foam or crumpled paper should be used instead of polystyrene edge protectors.

When you send your well-packed parcel to AES, be sure to include a letter inside the package stating your call, name, address, e-mail address, phone and reason for return. Do not rely on information written or taped on the outside of the carton.

**SHIPPING** Shipping charges, which include adequate insurance, are based on the Order Total at the time of the initial shipment (COD fees not included). The order amount on which charges are determined is pre-coupon and pre-tax (see chart on this page for rates). Cancellations on partially shipped orders will not affect the shipping charges. All back-orders from partially shipped orders are shipped PREPAID at the expense of AES® via Ground Service, only.

Shipping calculations on Ground method to the contiguous 48 states have been simplified by utilizing flat-rate categories (see chart on this page for rates). Other expidited methods and any USPS methods are charged at regular rates without any credit for ground rates. CODs are not accepted for these faster methods.

Shipments to APO/FPO are via Priority Mail. Orders exceeding ground method weight, size or value limits will be shipped via Truck or Air Freight collect. Shipping charges taxable in WI, FL & NV.

To insure orders arrive quickly, AES stocks items at all four locations. Occassionally, an item will be temporarily unavailable at certain branches, due to various reasons. In this case, AES will ship the order from a location that has the needed item.

**FLAT RATE SHIPPING via Ground in the contiguous 48 States**

| AMOUNT OF ORDER | SHIPPING CHARGES |
|---|---|
| Up to $100.00 | $4.99 |
| $100.01 to $500.00 | $9.99 |
| $500.01 to $1,499.99 | $14.99 |
| $1500.00 & UP | PREPAID |

*Flat Rate Does Not Apply To Drop Shipments*

**Flat Rate Advantage – No Penalty for Number of Cartons or Weight!**

**TRADE-INS** Amateur Electronic Supply® accepts trade-ins on new equipment purchases, the worth of which is determined by the electrical and physical condition of the item. Estimates are given assuming the trade-in is in good electrical and physical condition. If it is not, a deduction will be made.

To facilitate a trade-in, the customer can choose one of the following: (A) Purchase the new item(s), send in the trade for evaluation, and have the trade-in amount refunded or credited. (B) Send in the trade and have the order held until the trade-in amount is determined.

When shipping trade-ins for evaluation, use a sturdy carton (double boxing is recommended) and plenty of packing material. Ship PREPAID & FULLY INSURED. Do not use Bus or Parcel Post. Collect shipments will not be accepted.

AES® assumes no responsibility for damage in transit or for filing of damage claims. Canadians, inquire locally about taxes and/or customs charges before releasing your shipment.

*Canadians Note:* Returned equipment not originally manufactured in the U.S. will be subject to valuation and custom charges, plus broker's fees. Check customs before shipping anything to us, including new equipment for warranty repair. We will not accept any shipments from outside of the U.S. unless all fees are paid in advance.

**BIDS & PURCHASE ORDERS** AES® accepts written and signed Purchase Orders from well rated D&B companies, military, schools, colleges, universities and federal, state, county and city Government agencies.

We welcome the chance to bid on your requirements and search the Internet daily for requests from all Government agencies. We are registered with FACNET and accept Government I.M.P.A.C.® charge cards. Net terms available to Government agencies, schools, and companies highly rated in Dunn & Bradstreet.

For more information, please contact Paul Szczerbinski, W9KHO (pauls@aesham.com) at AES® Milwaukee. Toll Free: 1-800-558-0411, Local: 414-358-0333 or Fax: 414-358-3337

# We Invite You to Visit the Nearest AES® Location

All Store Hours: Mon–Fri • 9am to 5:30pm, Saturday • 9am to 3pm

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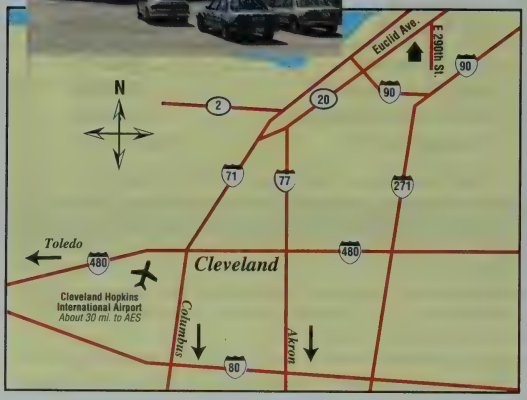
## CLEVELAND, OHIO

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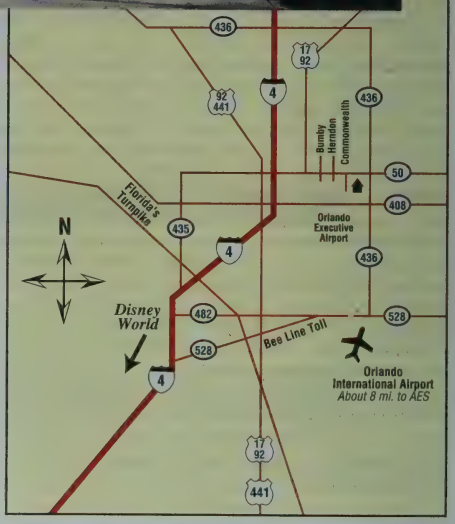
## ORLANDO, FLORIDA

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www.bwantennas.com

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sales@ceswireless.com

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sales@connectsystems.com

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603-627-7877 fax: 603-627-1764
techsup@cushcraft.com

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White City, SK Canada
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dci@dci.ca

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San Marcos, CA 92069
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diamondantenna@rfparts.com

**GAP ANTENNA PRODUCTS, INC.**
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Fellsmore, FL 32948
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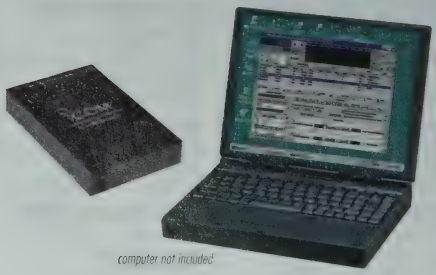

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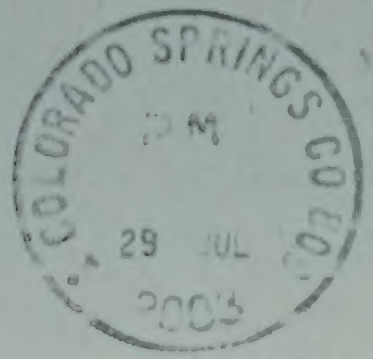


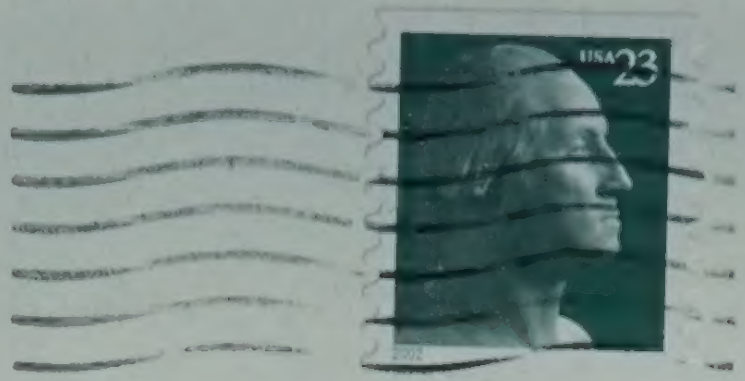


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